

The

AMERICAN RIFLEMAN



Published By
The National Rifle Association of America
Incorporated 1871

U.S. 1000

25 CENTS

First Place in Western States N.R.A. Civilian Club Gallery Championship



Top Row, Left to right:
Arthur Shivell, L. C. Davis,
Dr. R. V. Hogue, E. A.
Bachrach, R. E. Wolfe.

Lower Row, Left to right:
F. H. Phelps, J. H. Root,
J. B. Hall, Jack Cornell, Ned
E. Cutting, A. A. Fischer.

Below: Ned E. Cutting, Winner of High Aggregate Score in Western States N. R. A. Civilian Club Gallery Championship. Score 1334 x 1400.



...won by Glendale Rifle & Revolver
Team....using Peters Tackhole

Shooting with steadiness, skill and *Peters Tackhole Ammunition*, the Glendale Rifle & Revolver Club not only won first place in the Western States N. R. A. Civilian Club Gallery Championship, but also won second place in the National N. R. A. Match of the same Championship, scoring as follows:

	Prone	Standing	Total
Paul Holly	99	92	191
Ned Cutting	100	94	194
C. C. Pierson	100	95	195
Arthur Shivell	100	89	189
A. G. Bitterley	98	92	190
	497	462	959

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COME TO CAMP PERRY!

Make an International Rifle Team

Elsewhere in this issue (page 23) you will read an announcement of the coming National Small Bore Tournament to be held at Camp Perry beginning August 28 and ending Labor Day, September 4. The program consists of all the popular .22 caliber rifle championship events usually fired in conjunction with the great National Matches.

We have left no stone unturned towards making this 1933 Camp Perry Small Bore Tournament a happy and successful get-together for .22 riflemen of America. At Camp Perry you will meet and mingle with the cream of U. S. shooters. There you will have an opportunity to fulfill your great ambition—a chance to make a place on a U. S. International Rifle Team. A double opportunity this year because in addition to the famous Dewar Match a brand new International event, the U. S. vs. Great Britain and Germany, is to be fired for the first time. Plan to spend a week at Perry this year!

Keep Your Guns Going at Home, too

The N. R. A. fall program of home range rifle and pistol events is more than a schedule of matches. It is an opportunity, a triple opportunity, for you to—

- (1) Win distinctive shooting medals and trophies of National significance while practicing with your rifle or pistol at home.
- (2) Gain competition experience, recognized by every shooter as "old man buck-fever's" worst enemy.
- (3) Improve your marksmanship while matching your skill with that of fellow shooters throughout the country.

Whether you shoot the Service rifle, the Small Bore rifle or hand-gun, you will find in this program a generous schedule of events in which you have a fair chance to win State as well as National medals. Many of the matches are fired over the same courses as the big Camp Perry matches. This year we have arranged the fall matches so you may shoot any time during the three months period, August 1 to October 31, inclusive. However, closing date for entries in all events of this program is October 1.

CERTAINLY YOU KNOW AT LEAST ONE GOOD MAN WHO OUGHT TO BE A MEMBER OF OUR FRATERNITY. TELL HIM ABOUT THESE MATCHES. GET HIM TO SIGN ON THE DOTTED LINE BELOW. IF HE IS UNABLE TO SPARE THE \$3.00 FOR ANNUAL MEMBERSHIP CALL ATTENTION TO OUR NEW SPECIAL OFFER. FOR A SHORT TIME ONLY WE WILL ACCEPT APPLICATIONS FOR A HALF YEAR'S ACTIVE MEMBERSHIP, INCLUDING A SIX MONTHS' SUBSCRIPTION TO THE AMERICAN RIFLEMAN AT \$1.50.

NATIONAL RIFLE ASSOCIATION,
Barr Building,
Washington, D. C.

8-33

I believe in the aims and purposes of the N. R. A. and desire to support the good work as well as to avail myself of its services to members.

I certify that I am a citizen of the United States over 18 years of age.

Attached is remittance of \$3.00, \$1.50 of which is for a year's subscription to THE AMERICAN RIFLEMAN.

Please send me a membership card, one of the sterling "annual member" lapel buttons, copies of the latest price lists and enter my subscription to begin with the next issues.

MY NAME STREET

CITY STATE AGE

I am glad to recommend the above applicant as a sportsman and citizen of good character.

NAME OFFICIAL TITLE

ADDRESS

Warm up YOUR PET FIELD GUN

AT SKEET



WANT to improve your field shooting—and have a barrel of fun at the same time? Then warm up your pet field gun—at SKEET.

It's not easy—this following swift clay targets whizzing through the air—now away from you, now sailing toward you, one in the air, or maybe two. You've got to keep that gun moving! But what a thrill it is when you shatter the last "bird" and (with a satisfied grin) chalk up another victory.

Write us for the location of the nearest Skeet Field—or better still, build your own private Skeet grounds. \$100 will do it. Send for a free copy of "Hints to Beginners in Skeet Shooting" and the new Skeet Handbook which tells all about this tantalizing new sport.



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WILMINGTON, DELAWARE

The AMERICAN RIFLEMAN

VOL. 81, No. 8

AUGUST, 1933

FACTS

The American Rifleman is the official organ of the National Rifle Association of America, founded in 1871 by and for shooters. As the medium through which contact is maintained with the shooters of the country, it has diligently promoted the N. R. A. objectives which have effected the following services to the shooters:

Assisted the legislatures of 6 states this year in the drafting of laws to discourage the use of firearms for criminal purposes.

Opposed and succeeded in preventing the passage this year of 17 bills which would have unnecessarily and unreasonably restricted the possession and use of firearms by the honest citizen.

Qualified during the first six months of this year 192 rifle instructors and 15,263 junior riflemen in the various grades of marksmanship proficiency; is serving 1,740 affiliated senior clubs and 556 junior clubs; has enrolled 139 new senior clubs and 72 new junior clubs this year, and has expanded its year-round program of postal matches—all these endeavors tending to promote organized and, hence, safe shooting on properly supervised ranges.

Has produced a marked increase in pistol matches and practice among police departments, has caused the incorporation of special police matches in a number of already established shoots, has instituted police pistol leagues and provided suitable awards, and notably was chiefly responsible for the establishment of the Eastern Regional Police School and Matches.

Has unremittingly served to develop and maintain a high standard of marksmanship in the Regular Services, National Guard and the Officers Reserve Corps by including in its competitions events suited to their preferences, by providing trophies and medals and, most important, by organizing last year and for this year state and regional tournaments for the N. R. A. championships and trophies as a substitute for the temporarily suspended Camp Perry National Matches.

Has given of its experience and close everyday association with the shooters toward assisting government and commercial arms and ammunition factories in developing and improving their products and has initiated a new plinker target game which is a wide departure from the usual target match.

Has been supplying an average of 600 shooters a month with unbiased and accurate information by personal letter, relaying the more important questions and answers to all shooters through the columns of THE AMERICAN RIFLEMAN.

Has persistently sought before Congress to have maintained an adequate but nonmilitaristic national defense program for the United States, to keep our armed forces on a par with the strength of other nations, to properly provide for the National Guard, O. R. C., R. O. T. C. and C. M. T. C., and to encourage marksmanship among civilians by aiding clubs and permitting civilian qualification over the military courses of fire.

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P O W D E R S M O K E

Ten Thousand Boys

TEN THOUSAND boys in a rifle match; ten thousand youngsters of whom four out of five have never previously heard of rifle shooting as an organized sport with definite rules and regulations, established technique, permanent records and mellow tradition! Ten thousand members of the rising generation, most of whom are learning for the first time the code of safety which is a habit with the properly trained shooter; learning the principles of sight adjustment and "trigger squeeze"; learning indeed that men have for years been working out those shooting positions which will give the best results, and are willing to pass this information along to the tyro!

To every rifelman who has the best interests of the game at heart, this must indeed be an inspiring picture. It may appear, too, as something of a Utopian dream; something to be devoutly wished for but not likely to come to pass. Let it be known, then, that the picture is actually in process of materialization.

Thanks to the initiative of *The Open Road For Boys*, the magazine edited by Mr. Clayton H. Ernst, in Boston, there is now under way a National Small-Bore Individual and Team Match which is reaching into fields of youthful shooters heretofore untouched by the organized shooting game. Thanks to the willingness of *The Open Road For Boys* to accept the guidance of the National Rifle Association, these boys are not going to fire haphazardly, as they probably have been doing most of their lives, but are going into this match with a knowledge of safety rules and shooting technique which must force open up to them new vistas of possible accomplishment in the traditional sport of their pioneer forefathers.

This is not being written as any "pat on the back" for Clayton H. Ernst and *The Open Road for Boys*, deserving of

appreciation as that editor and his magazine are. Rather it is being written to point out, as editorials are supposed to do, the moral and the inspiration which lie behind the episode.

For years the National Rifle Association has been urging its affiliated clubs and its individual members to bestir themselves in the interests of the youngsters of America who want to learn to shoot—want almost above anything else to shoot, if someone will give them the opportunity and the guidance. Far too many riflemen, supposedly sold on rifle shooting as a great American sport, have made only half-hearted attempts, or no attempt at all, to take one or more youngsters and teach them the fundamental safety rules, sportsmanship, and technique of the rifle-shooting game. Too often the excuse for failure to act has been, "the kids aren't interested."

For many years, too, the N. R. A. has been urging the arms and ammunition companies to advertise to Young America the fact that rifle shooting is something more than shooting promiscuously at tin cans on fence posts, and at small game during the short open season. The advertisers have been convinced, these many years, that the average American boy who wanted a rifle did not want it for the purpose of shooting at paper targets and winning medals and cups, but to send a tin can rolling, or to bowl over a rabbit. They had the impression that while a youngster might be willing to spend weeks in training, denying himself many of those things dear to a boy's heart in order to help win a football game or a track meet for the sake of a medal or a cup, that same youngster could not be interested in shooting a rifle to win the same kind of a medal and cup, or for the mere glory of winning.

While the manufacturers of tennis equipment found it advisable to use the Davis Cup Team

in their advertising as an inspiration to Young America to take up tennis, no arms and ammunition manufacturer ever thought it worth while to use the American International Rifle Teams as advertising copy in an effort to inspire Young America to take up rifle shooting as a sport.

The Open Road For Boys reaches the average American boy. It has never before carried any editorial matter of consequence which would tend to build up a circulation among boys who were particularly interested in shooting. It is therefore to be sincerely hoped that the success of this cooperative experiment by *The Open Road For Boys* and the N. R. A. will prove the error of their ways to both the lukewarm seniors who have thought that the kids were no longer interested in rifle shooting, and to earnest but probably misinformed advertising managers who have believed that it was a waste of time to advertise organized rifle shooting to Young America.

National Headquarters of the N. R. A. will keep in touch with the ten thousand youngsters who are being reached in this national experiment, but it must be remembered that there are a million or more boys of the same type who should be contacted and helped, and who can be reached only if the individual members of the N. R. A. and its affiliated clubs will sincerely and earnestly give a portion of their shooting time to the boys of their community.

There is no time like the present. Take at least one healthy, red-blooded kid under your own supervision now—this summer—and teach him all that you can (with the assistance you can obtain gratis from the N. R. A.) about that most typically American sport—rifle shooting. *The Open Road For Boys* has with similar assistance proven that it can be done.

The AMERICAN RIFLEMAN

AUGUST, 1933

At Sea Girt—Cradle of the Small Bore

By AL BLANCO

SEA GIRT is unquestionably the cradle of small-bore rifle shooting in this country. It had always been thought that no sober-minded person would spend time and money to shoot a .22-caliber rifle in serious competition, until Sea Girt put the game across. Now small-bore competitions are well established throughout the country, and are growing more popular every year.

The Sea Girt Shoot this year began Friday, June 30th, with re-entry matches at 50, 100, 200 and 300 yards on the rifle range, 20-shot .22 pistol and 20-shot .38 special revolver matches on the pistol range, and a very small amount of sight-in practice, with a pair of re-entries in the latter. Everything would have been lovely because some 135 shooters were on hand on the two ranges, but there was a fog at sea, and someone with fine nautical training but little knowledge of a shooter's objection to being interrupted two or three times per 10-shot score, persisted in blowing the fog horn every ten or fifteen minutes, from 9 a.m. to 5 p.m. On a calm day this would have been bad enough, but with a roaring ocean wind howling in at 15 to 45 miles per hour from 2 o'clock, and very gusty, these five to fifteen-minute interruptions resulted in some of the finest collections of fives and threes, and tens and eights, that anyone ever saw.* Then, too, there were seven volunteer firemen on the range, and it is said that every time the siren let loose its unearthly "WHEOO! WHOIE! WHOIE! WHOOP!" those chaps would drop their rifles and

* For the benefit of those not familiar with conditions at Sea Girt it should be explained that there are no backstops, the shots going out over the ocean. When a boat approaches within the danger zone a siren is blown and all shooting ceases. Also, when because of fog, rain, etc., the visibility becomes so poor that boats can enter the danger zone without being seen, the siren is blown and shooting stops until the visibility again becomes satisfactory.

scopes, grab the nearest convenient tree, and try to shin down the brass pole. Young Bill Bryan was so exhausted by 4 p.m. that someone said they had to try to revive him with a bottle of Hoppe's No. 10.

All this apparently had no effect upon Papa Hoppe's Germansville boys. W. B. Woodring, who comes from Bethlehem and is about a third as big as Charley German, shot five possibles at 100 yards, and then to hunt something a bit soft, went down to 50 yards and ran 50 straight 10's, 46 of these being X's. Earl Handwerk—possibly as good an example of hand work as you can find when it comes to rifle shooting—shot at 50 yards a 500 which contained 47 X's. George Sittler thought he might as well be sociable and fire along with his boys, so he, too, scored 500, with 41 X's. Russell Parry, a hang-over postmaster who is far from being a hang-over when it comes to shooting, proceeded to stamp the 10-ring to the tune of 497 at 100 yards. And maybe all this didn't *breastle* their competitors! Eric Johnson put an Eric Johnson barrel on exhibition by scoring 500 at 50, with 44 X's; and Frank Hoppe, Jr., made the only 99 at 200 yards.

Over on the pistol range there was plenty of grief. That 40-mile wind got up to 50 or more down by the black-duck sanctuary, and an average of 78½ won the .22 Pistol Championship for H. W. Amundsen. Charley Migliorini, of the N. Y. City Police, who is accustomed to bouncing stiff breezes out of speak-easies, averaged 81 to win with a .38 Colt in the revolver match.

NO SHOT IS COMPLETE WITHOUT THEM. ERIC JOHNSON (LEFT), CHARLEY JOHNSON AND L. J. MILLER

The really big doings of the shoot started Saturday





morning. On the rifle range they had the Eastern Individual Rifle Match, and on the handgun range, the Individual Police Match. Again there was plenty of wind, and in addition there was so much fog and haze that at 50 yards in the Championship, man after man came off the line with a hang-dog look, and the admission that he had "dropped a bunch of them" because he couldn't spot all of his shots, especially the first ones. At 100 yards the wind picked up considerably, became gusty, and of course was blowing from the opposite direction from that on the day before. At 200 is where the real grief began, and many a chap with only a point or two lost at 50 or 100, put on a handsome 88 or 91 at 200, while 288 was considered a pretty good total long before the match was finished. Virgil Richard was only one down at the first two ranges, but Virgil didn't get warmed up at 200 until the Swiss Match, which he again won.

T. A. Riley, from Washington, who has listened to more hot air in Congress than most of his competitors, was right at home. Riley was leading the life of Reilly, with a 100 at 50 yards, a 99 at 100 yards, and a 96 at 200 yards—good enough to win the Eastern Small-Bore Rifle Championship with two points to spare. Clarence Held, Papa Hoppe's Right-Hand Man and a holder among holders, was right on Riley's heels, with 98, 97 and 98. George Sheldon brought a fine-looking setter along from Poughkeepsie to give him luck; and this begetting of the famous Charley Johnson sardine hound helped his boss into third place with the same total. In the 50-yard stage of the Eastern, Russell Parry was high with 100, including 9 X's. At 100 yards, Doc Swan-

son topped the crowd with an 8X possible. The 98 in Clarence Held's score put him on top of the deck at 200.

Next there was the Eastern Team Championship, a welcomed win for George Wilkinson's Bridgeport Rifle Club Team, with 1153; the team consisting of Fred Kuhn, Wilkinson, Erick Johnson, and J. A. Onkey. Four points lower was the District of Columbia National Guard, composed of A. J. Thill, Walter Stokes (who this year was Camp Surgeon), J. C. Jensen, and T. A. Riley. Then came Bear Rock Teams Nos. 1 and 2, that were just getting warmed up for the Palma. Not a great deal to report in this match: just a hard-holding bunch of shooters trying to get a few breaks.

Then came the 300-yard Championship, along in the "ahfternoon." A quiet chap from Hartford, young Henry Haase, shooting in his first really big rifle match,

and under the watchful eyes of his "missus", put on a 94 before he discovered that it was long past time for both Haase and the horn to "blow". Men were pumping his hand up and down before Haase had any idea he was even in the first ten; but Charley Johnson, with 93, made it a mighty close win.

Over among the cops, where the wind blew and blew, A. P. Schuber of the New York City police won the Individual Championship,

A QUARTER-MILE OF SMALL-BORE RIFLE SHOOTERS FIRING IN THE EASTERN INDIVIDUAL CHAMPIONSHIP

with a pretty good total considering the many handicaps everyone faced; while in the team match

the Delaware & Hudson Police, who are accustomed to facing tough situations, came through with 1390, which is probably a new record score for teams of five in the Police Revolver Team Match, calling for ten shots slow, ten timed, and ten rapid fire, all at 25 yards. The New Jersey State Police were second and New York City third.

The Palma Individual and the Palma Team Matches were the big events of the third day, they being in fact probably the outstanding events of the tournament.

People can talk about the virtues of Lydia Pinkham's and Mellin's Food, but if you want to produce a He person, never overlook the possibilities of Hoppe's No. 9. Early in the game there was observed a young chap, who could have been mistaken for Jim Londos or Max Schmeling, breezing along under a 52 Winchester

**THE FAIR SEX
WAS WELL
REPRESENTED**



equipped with a full octagon Hubalek barrel about the size of a 120-pound rail, a 16-Power Fecker Telescope, and enough ammunition to supply a battleship. He was referred to as "Frank Hoppe's boy," one of the younger men who had cleaned up his whole club at home—the Frankford Arsenal Rifle Club! The wind was

DOWN ON THE PISTOL RANGE THINGS WERE PLEASANT BUT AIRY. E. F. MITCHELL (LEFT) AND JACK DOOLEY ARE AT THE DESKS, WHILE P. B. STEINER, WHO FINISHED THIRD IN THE .22 SLOW-FIRE PISTOL MATCH, IS THE SHOOTER ON THE RIGHT

BLOWING, but if it blew on Frank Hoppe it merely glanced off that Hubalek howitzer and went over Hoppe's head. Frank put on a 75 at 150, another 75 at 175, and a third 75 at 200, while 225 yards fazed him no more than 50.

There was some pretty good shooting in the Palma, even though there was but the one straight score. P. R. H. Washburn had the ranking 224, Paul Monty of Perth Amboy was third, Clarence Held fourth, and Riley fifth, all with one down. Rifles were mostly heavy 52's, and ammunition mixed. Were it not for the fact that wind conditions have been so very bad during the last two years, the Sea Girt shooters would learn, as the boys elsewhere have long since learned, that modern .22 long rifle ammunition of match quality has made the old C-5 target as obsolete as the dodo.

The Palma Team Match was simply an opportunity for Papa Hoppe's Germansville boys to put on the favorite Bear Rock steam-roller act. Last year they



won the Palma, and they made a new World's Record Score of 897 to win it this year—224 by Clarence Held, 225 by Marlin Kemmerer, 223 by Russell Parry, and 225 by W. B. Woodring. Woodring has a future before him. Apart from being the anchor man, he also won the Grand Aggregate. Another poker face in the shooting game, he is a good winner, a good loser, and a good team man. Also, both he and his team captain say that he has a 52 with which he can get up off the firing line, quit shooting for ten minutes, get down again, and shoot into the same group and zero as before.

Bear Rock Team No. 2, consisting of Sittler, German, Handwerk, and Bittner, scored 891; Bridgeport Rifle Club hung up 890 for third.

Bill Schweitzer and his Moorish hat won the 100-yard Individual Match with 200 x 200, and 8 X's. Harry Frohm, of the Wilkes Barre Frohms (there are two

of them—Frank's brother won the "J. C. Special), was second in the 100-yard match, with 199 including 15 X's; a much better score in fact than the winning total. Clarence Held was third with 199 and 11 X's, while following Clarence we find H. S. Ward of the Outers Club with 198 and 14 X's—again a better score than the ranking total. Two pretty good examples here that the X-ring, and not the 10-ring, should be the basis of scoring in modern small-bore shooting.

On the pistol range Gene Mitchell's pupils shot the Timed-Fire and Rapid-Fire matches. J. H. Overbaugh of the D. & H. Police won both of them. Crescio was second in the Timed-Fire match, and Harry Russ the runner-up in the Rapid-Fire. Both of these events were at 25 yards, and they showed remarkable shooting with .38 Specials in the face of very discouraging wind conditions.

Monday it rained. That was the day that "nobody did nutting". Some played pinochle; others looked on. A fire was built in the club house, and a few looked into the possibilities of "Hoppe's No. 10."

The final day of the shoot was a hummer. The weather had begun to slip back into low gear, while the horn tooter had begun to see the error of his ways. This Tuesday saw two days of shooting crammed into one.

The Eastern Two-Man Team Match, always a big drawing card, was won by a dentist and a fireman—E. O. Swanson and Bill Bryan—with 786. Next came Eric Johnson and (*Continued on p. 13*)



The Preservation of Gun Bores

By HERVEY LOVELL

AT THE tender age of ten I was promised a rifle, if and when I picked up all the roots and brush from five acres of new ground that Dad had cleared, preparatory to planting in potatoes. I was to have the money from two potato rows that were shaded by woods next to the field.

No city man can realize the stooping drudgery of clearing that brush, and hoeing, weeding and digging that crop; and yet, could I but turn the clock back through the years, I would gladly be that tow-headed urchin again, with faith in his heart that he would own a small rifle in the fall!

Like other potatoes, those grew and were sent to the city, thirty miles away. Then my crop money of three dollars was sent to that country boy's wonderland, Montgomery Ward's, and in due time there arrived a Warrant-action rifle stamped "Belgium," and two boxes of .22 shorts.

Shortly after the arrival of the rifle, a rabbit was located in the orchard, and shot; and the rifle was cleaned and put away until the Saturday all-day hunting trip. And no contemplated trip to Alaska today could carry with it such a thrill as did the anticipation of that Saturday; or give birth to the heartache that was mine when I discovered great gobs of rust in the bore of my new rifle! From that day, thirty years ago, I have had a greater horror of rust than of smallpox itself; and since then every available oil, and method of cleaning, has been tried for at least one season, and the results noted.

What follows applies in general to high-power ammunition with jacketed bullets, and particularly to ammunition in which chlorate primers are used.

The present water-and-brush method of cleaning a rifle held promise until gilding-metal jackets were found to foul nickel-steel barrels near the muzzle. Now, copper or a copper alloy, in contact with steel, frequently sets up galvanic action, from which pitting results; however, rifles lightly swabbed with ammonia water to remove the thin layer of copper, along with the primer residue and fouling, will remain spotless until shot out at the breech end.

A grease or heavy oil is necessary to protect the rifle bore after cleaning, or the cleaning is wasted effort. In past years my tools, and the bright parts of my lathe, constantly rusted on rainy days; two greasings a day failed to protect them when the shop was not heated. Every known grease and oil was tried in turn, but all failed to stop damp-weather rust on guns that were

handled, until I finally came to the oldest grease on the market, produced long ago by the English wool-washing industry. This is the grease from sheep's wool, sold under the name of "Lanolin"; and it did the work. One advertised gun cleaner contains some of this grease, as well as soda.

The *American Machinist* once published the results of a test of four different rust preventatives conducted by a Mr. E. E. Hals, a chemical expert; and I give this information herewith, as being of some interest to shooters. The test covered a period of four weeks.

as gun parts do not operate at continuous high speed, and are not subjected to heavy pressures; and such oils congeal in cold weather and cause misfires, as often happens in cold countries like Alaska and Canada. A thin white oil that is good for gun actions can be secured at all Standard filling stations, at 25 cents per quart. Simply ask for "Fine Oil." Probably other oil companies carry this same oil in stock, though perhaps under a different name. I have used two quarts of the Standard oil, and have never found a trace of gummy residue, or been troubled with a sluggish

Type of Grease	Atmospheric-Exposure Test on Steels			
	1st Day	7th Day	21st Day	28th Day
Paraffin	Rust appeared	Heavy rust	Discontinued
Light mineral oil	Slight rust	All samples rusted	Discontinued
Mineral jelly	Unaffected	Unaffected	Rust on edges
Lanolin mixture	Unaffected	Unaffected	Unaffected	Slight rust over surfaces Unaffected

I use 14 per cent ammonia to clean rifle bores, and then apply the Lanolin mixture with a brush. I can grease a new barrel and trust it to the express company until the customer receives it, or lay my shot-guns away until the next quail season, with no uneasiness of mind.

Lanolin is a fatty grease obtained from the wool of sheep. Several grades are available. Its excellent rust-preventing qualities seem to be the result of its ability to absorb small quantities of moisture. Steel coated with Lanolin is prevented from rusting by the permanent emulsion formed. As it contains fatty esters, Lanolin is naturally acid. The acidity is very low, however, and will not affect steel, although it has a corrosive action on the copper-nickel alloys which foul our rifle bores near the muzzle.

The Lanolin mixture referred to is prepared very easily; just mix an ounce of white vaseline with two ounces of Lanolin. The resulting grease is easy to apply to gun bores, or other bright steel articles such as tools; it stays put, and it is fool-proof. The corner druggist always carries on hand a supply of vaseline and Lanolin, ready to mix.

For rifle and shotgun actions a very thin oil is best. Heavier oils are not necessary,

firing pin causing misfires on cold days.

This oil is not a reliable protection for the bores of rifles that are to be set away for months, but it answers the purpose where the rifle is to be used the next day. The oil has not enough viscosity to cause it to adhere strongly to the steel, for permanent protection; nor have any of the so-called gun oils, for that matter. The latter are good lubricants for light mechanisms, but they mislead riflemen into depending upon them for a protection that they do not give.

I want my guns to be kept in perfect condition, and I once ran the following test on five brands of gun oil. A handful of chlorate primers were exploded on a strip of tool steel that had been hardened and polished, and was more resistant to rust than ordinary gun-barrel steel. Each of the five oils was swabbed on the steel to cover a band an inch wide, and the piece of steel laid under a board walk for twenty-four hours, subjected to considerable dampness. When inspected it showed four badly-corroded sections and one just slightly dark section, which had been covered with an oil that we hardly ever see, though put up by a prominent gun factory. Three of the brands were highly-advertised gun oils, and widely used. Any one of those five brands of oil would have let a rifle become so pitted in seven day as to be forever useless except as a stove poker.

Moral: Clean the bore with weak ammonia water—simply water in which 14 per cent of ammonia gas has been dissolved, such as Parsons or Bo-Peep household ammonia obtainable at your grocery store. Then swab the bore with a patch smeared with Lanolin grease, and Old Betsy is safe from smallpox.





MR. ADDICKS IN HIS SHOP

The '03 Winchester on a New Diet

By M. A. COOPER

YEARS ago, not long after the Winchester '03 Automatic .22-caliber rifle appeared on the market, my father brought one of these rifles home to us boys, to our great delight. I wonder if any of us ever entirely forgot the advent of the first real guns that come into our hands? I think not.

This little rifle was an unqualified success. The action was reliable, and the stock suited us much better than the stocks of other .22's of that day. When a few years later we went moose hunting in Canada, the rifle went with us as a guide's gun, for use on partridges, ducks, and whatnot. Later a second '03 appeared, to be used in the same way; and the two rifles sent many a partridge to the pot. Porcupines were also considered fair game because of the damage they do to the timber, and the hollow-point bullet which appeared later made the rifles most effective on these animals.

The little Automatics were also used to finish off moose that had been anchored by the heavier rifle; and on one occasion, when a trapped bear made a most disconcerting rush, a lucky brain shot by my brother finished the bear completely, and added yet another point to a record that any .22 might well envy.

There was, however, one fly in the ointment: No amount of cleaning could keep the bore free from corrosion and pits; and when the pits extended to the chamber, a new barrel was necessary. Non-corrosive primers cured the difficulty, but when they finally appeared the .22 long rifle cartridge was going through one of the

most remarkable developments that have ever been made in any cartridge. We had often talked of the possibility of changing the action and barrel of the rifle to make it handle the long rifle cartridge, but that was as far as it had gone until Winchester brought out the new Model 63. Then, in response to a letter of inquiry, the Winchester Company stated that it was impracticable to change the '03 to handle the long rifle cartridge, as the expense would be greater than the cost of the new Model 63.

So finally I took the '03 to my friend and neighbor, Mr. D. C. Addicks, confident that he could do the trick, and that the rifle would soon be burning up long rifle cartridges as reliably as it had ever handled the old .22 Automatic cartridge. I was all the more confident because I had found that nothing really appealed so much to Mr. Addicks as a job which had been pronounced difficult or impossible.

Mr. Addicks was delighted with the workmanship of the splendid little gun, and the strength and simplicity of the action. He took it apart and studied it carefully; then put it together again and worked the action, slowly and carefully, many times. His verdict was that he saw no reason why the action could not be changed over and the barrel relined to handle the long rifle cartridge; so the rifle was left with him.

A phone call a few days later brought me to Mr. Addicks's shop, where I found that a lot of ground had certainly been covered. Mr. Addicks outlined the

changes in the rifle which he considered necessary, and showed me the tools he had designed and made to make those changes with. These latter consisted of various small gadgets, and some tiny, beautifully-made milling cutters—things to make the owner of a home workshop green with envy. Mr. Addicks turns out such things with the ease with which most of us saw off a piece of plank to patch up the wheelbarrow.

I asked Mr. Addicks to go ahead and rebuild the rifle according to his ideas as outlined. When it was finally ready for test I hurried over to the shop, taking plenty of ammunition with me. I found that the external appearance of the gun was unchanged. Then I fired it to see how the action functioned. It fired just as fast as I could pull the trigger, and kept it up until I began to reflect that ammunition costs money. That settled the biggest question in our minds.

We next tried the rifle at 100 yards prone with muzzle rest; but here trouble arose. The rifle, which functioned perfectly off-hand, balked badly when fired as above. The test was repeated several times, and the trouble located. The cartridge stop in the magazine would occasionally fail to hold back the next round after the chamber had been filled. The trouble was corrected, and when I next tried the rifle on the range there were no jams.

For squirrel shooting, if given a better stock, this rifle could hardly be improved
(Continued on page 20)

Some Suggestions on Firing the .45 Colt Automatic

By CAPT. C. B. BYRD, CAVALRY (DOL)

THE proof of the pudding is in the eating. The proof of a pistol is the accuracy and speed with which it can deliver its shots. Although the Colt Automatic Pistol, Caliber .45, fulfills these two requirements, it has certain peculiarities which must be understood before it can be mastered.

This pistol was not designed to be a target weapon, but rather as a weapon for warfare. However, it can be used rapidly and accurately, even mounted; it can be quickly reloaded, even by the mounted man at the gallop; and it can deliver a series of projectiles with sufficient shocking power to stop any man, regardless of his geographical nativity. Although not a target gun, it can hold its own with the best of target pistols when the test gives a break to its peculiar characteristics. By the beginner it is considered a tricky firearm, and it is even so considered by many others; and thus many owners are discouraged after a trial or two, and the pistol is laid away and no longer used. It is true that the results of the firing of this weapon reflect more distinctly and surely the faulty position, grip, trigger-squeeze and mental poise of the firer than probably is the case with any other weapon, the reason for this lying in the construction and functioning of the pistol, which results in its individuality as a firearm.

In the first place, the grip is so large for the average hand that a firm and comfortable hold with the forefinger on the trigger cannot be obtained. Even in the improved model, in which the receiver in rear of the trigger has been cut out and the trigger moved to the rear, it is still too long a reach for the forefinger on account of the fact that the mainspring housing on the rear of the grip has been so bulged as to somewhat neutralize the advantage gained. The sights are both on the slide, which loses contact with the barrel upon the recoil after each shot. Theoretically, this should be fatal to fine shooting, but actually such does not appear to be the case.

This pistol being of a large caliber and the ejector action being slightly to the right, the recoil is to the left rear, and in rapid fire realigning the pistol must necessarily be a rotary movement to the right, and this is distinctly awkward. Probably the worst feature of this arm as a target weapon is the fact that its trigger pull as issued or as bought is usually well over 4

pounds. In the issue pistol it sometimes runs as high as 8 pounds or more. If the sear notch is worked down to ease the trigger pull, even by an expert, the chances are three to one either that the pull will not remain constant on account of having gotten into soft metal or that the hammer will follow the slide down and the piece will not work automatically. The action of the sear and the sear notch are such that during the trigger squeeze there is no steady sliding, or giving, of the trigger, to the point where the hammer is released and the gun is fired. The squeeze causes no give to the trigger until the sear and its notch part with a jump. This makes it difficult to maintain a grip which will preclude a flip between the time the sear is released and the bullet leaves the barrel.

When the construction and functioning of the pistol are understood, it is then only a matter of contriving a system of firing which is calculated to offset these unfavorable aspects. The suggestions on how to fire the .45 Colt Automatic Pistol which follow are based upon some eighteen years of observation and firing of the pistol, which includes the experience of firing on a National Match Army Pistol team, and other teams, and in instructing soldiers in firing the weapon. There are without doubt many experts in firing the Colt Automatic who do not use the system which I suggest, but the writer is of the opinion that all of those who do really fine work with this gun use a system which very closely approximates it. These suggestions are offered with the hope that they may be helpful to beginners, and of some interest, at least, to others.

There are only three things of importance to learn in order to be able to fire the .45 Colt Automatic pistol correctly and accurately. They are *position*, *grip*, and *trigger squeeze*. In this weapon these three things dovetail into one another so smoothly that it is hard to determine where one stops and another begins. All three must be such as to suit the characteristics of this particular pistol.

Position

First face the target, then make a complete left face of 90 degrees. Separate the feet by a comfortable distance (usually not more than 8 or 10 inches), the weight resting easily and *equally* on both feet.

The knees should be straight without stiffness; that is, not locked back in a rigid position. Some firers find it more comfortable in this position to bring the left foot an inch or two to the rear of the right foot. The upper part of the spine should be *vertical*, so that when the head is rotated toward the target the eye looks naturally along the top of the arm and through the sights of the pistol. In this position the line of the shoulders is exactly in prolongation of the extended arm, and the arm and pistol are supported with the least effort. The arm should be held straight, but *relaxed* at the elbow joint. Some firers place their chins in contact with the shoulder to prevent any tremor or sway of the head independently of the arm. This will depend upon the conformation of the individual.

The flat of the forearm should be rotated until it is nearly horizontal, usually about 30 degrees from the horizontal, but should on no account be vertical. The left hand should be placed in the left breeches pocket, as this gives the greatest relaxation to the left arm and places it more exactly in the same position for each shot. After this position is taken, if the firer will swing the entire right arm up and down slightly, and rotate the joints of the shoulder and arm once or twice, it will help to eliminate any involuntary and unnecessary contraction of the muscles.

In rapid fire, more muscular effort is required to keep the original grip on the pistol during the succession of recoils, and to keep the pistol from jumping too far out of the line of sight, and thereby wasting valuable time in realigning it from a greater distance. This effort is exerted at the wrist, by the three lower fingers of the hand, and by the muscles which hold the arm straight. No additional contraction should be exerted on the muscles which control the trigger finger. Incidentally, in both rapid and timed fire, both eyes should be kept open, if possible.

Every person's body sways somewhat when standing. This is normal. If there is no unnecessary contraction of the muscles of the body, as in fighting against the sway while aiming, the entire body and arm will sway together, the pistol being carried along. Thus in a relaxed coordination of the body the rear and muzzle of the pistol will move together. For side sway, the barrel and sights will remain parallel to the original line of sight, and

side sway should not move the aligned sights out of the bullseye.

Grip

The pistol is a short weapon and is a long distance from the steady base of support—the feet in contact with the ground. Also the grip, with the forefinger, includes a from 4 to 7 pound trigger pull, and this much of the grip is suddenly broken as the sear is released from the sear notch, and before the bullet leaves the barrel. This blow of the trigger finger onto the grip or hold when the hammer is released has an inevitable effect. It is the necessity of overcoming or neutralizing this blow to the steady agent of the pistol, which is so far from the ground, which makes the proper grip of so much importance.

The grip should be such as to cause this 4 to 7 pound slap of the forefinger to be straight back parallel to the pistol and arm, and have its momentum caught squarely in the crotch of the hand below the grip safety. If the grip is not such as to give the trigger finger a straight-back pressure, the flip of the pistol before the bullet leaves the barrel will derange the alignment proportionately as the pressure of the forefinger deviates from the parallel with the pistol.

The right arm should be fully extended, the pistol in exact prolongation of the arm as viewed from above, with the wrist joint straight, or bent slightly to the right to lessen the shock of recoil. If the hand is placed too far around to the right on the pistol, it causes the wrist joint to be bent to the left. With the wrist in this strained position, one or two recoils will cause tremors. In addition, the recoil will be away from a line parallel to the arm, and in rapid fire this is not only awkward, but consumes valuable time in realigning. If what is thought to be the proper grip is taken, and is then changed so that the thumb goes farther forward, and the new grip tried out, a better appreciation of proper grip will be obtained. The best rule of thumb is to grip the pistol so that the tang of the grip safety is about a quarter of an inch to the right of the line of the crotch of the hand caused by the junction of the thumb and forefinger.

The higher on the pistol or the nearer the bore the grip can be obtained the less will the rotary tremors of the hand and arm deflect the sights and bore. If the firer will try to develop the feeling that he is holding the barrel of the pistol between the thumb and forefinger, with the rear of it in the crotch of the hand as if he were holding a lead pencil so and sighting along it, it will give him a better idea of the increased firmness and steadiness of a *high grip* on the pistol.

The further into the grip (grip safety)

the crotch of the hand can be forced, the further around the grip will the thumb and fingers extend, and the more secure will be the grasp. This will also give a better purchase on the trigger with the forefinger, and hence a steadier squeeze.

The grip in rapid fire should be firm enough not to be displaced or loosened even slightly by the succession of recoils or jumps of the pistol. If this precaution is not taken, there will be considerable dispersion regardless of the carefulness of the aim and squeeze, as a different grip for each shot will place the hits on different parts of the target. On the other hand, if the grip is too firm and there is too much muscular effort in the wrist, when the finger releases the trigger suddenly, with the consequent 4 to 7 pound slap into the grip, and before the explosion occurs, there is apt to be a reflex-action flinch in the wrist similar in character to that experienced in the knee when the doctor taps you on the crossed leg at the knee with the little hammer. And the trouble with this kind of flinch is that it gets in its work before the bullet can leave the muzzle, even though the trigger squeeze was perfect and the instant of the release of the sear could not be foretold.

Trigger Squeeze

We all know the importance of proper trigger squeeze with the rifle. When we consider that the rifle is a long weapon, with one end practically tied to the body, and that the body in all positions except the offhand is almost immovable or at least very steady, we know that our efforts were only to hold steady *one end* of a long weapon well supported along toward its middle with our arms, and with practically a fixed position of its rear end against the body. On the other hand, the pistol is a very short weapon, and even if its rear end were fixed, a relatively slight sway or movement of the front end would cause a much greater deflection of the path of the bullet than in the case of the rifle. All the steady influence that the firer can exert on the pistol is exerted at the rear only, by means of the hand. The steadiness of the hand depends solely upon the steadiness of the body and arm. The hand is from 5 to 6½ feet from the ground—measured through the body. When these factors are considered, it is easy to see how an incorrect trigger squeeze can deflect the bullet far from the object aimed at, and how much more important correct trigger squeeze is with the pistol even than with the rifle.

It goes without saying that the trigger squeeze must be applied so steadily that the firer cannot know the instant at which the pistol will be discharged. In addition to this, because of the fact that the firing of a shot is always preceded by a resistance to the squeeze, and a subsequent 4 to 7

pound slap of the finger and trigger into the grip, the squeeze must be straight back toward the crotch of the hand in a direction parallel to the long dimension of the pistol and bore, in order to eliminate or minimize a consequent flip of the pistol.

The shooter should develop the feeling that the trigger finger is working entirely independently of the rest of the hand which is gripping or holding the pistol; that is, that the relation between the trigger finger and the rest of the hand is similar to what it would be if the pistol were held in the left hand and the trigger squeezed with the forefinger of the right hand. By practice, a coordination of the muscles of the hand can be developed, and the firer can to some extent "pull the punch" of the trigger finger after the trigger has released the sear from the sear notch.

One Service pistol team captain, in preparation for the National Matches, required his pistol shooters to exercise the trigger finger by contracting it rearwards outside of the trigger guard, *after* a correct grip had been taken. This is especially valuable just before a string of rapid fire. It will thus be seen that the squeeze with the whole hand as when squeezing a lemon is not applicable to the pistol.

As no one can always hold exactly on the bullseye during the entire time of the trigger squeeze, pressure should be increased on the trigger as the sights approach the proper alignment on the bullseye, and if the squeeze is not finished at the proper point and the pistol sways away from the point of proper alignment, the firer should hold the pressure already applied, without increasing it, until he brings the pistol back near the bullseye again, at which time pressure on the trigger is again increased. This is continued until the pistol is fired. It is easy to do this in slow fire, but it takes practice in rapid fire.

The trigger squeeze in rapid fire is started with a firmer pressure and completed more quickly than in slow fire. In rapid fire there should be a constant pressure on the trigger from the time the squeeze is started for the first shot until the score is completed, except for the brief instants at which the trigger is released for the next shot. There should be considerable pressure on the trigger while bringing the pistol back into alignment after the recoil, and before the sights are correctly aligned for the next shot. In this way only a slight additional pressure is necessary to get the shot off, and much needed time is saved.

Most firers flinch, or at least experience a surprise or reaction of some sort, when the explosion takes place, if the trigger is properly squeezed—so steadily that the instant of the explosion cannot be fore-

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"Gunmaker to His Majesty"

By MAJ. ERNEST E. TOWNSLEY

MANY interesting and complicated mechanisms have been devised in all parts of the world during the past couple of centuries in order to obtain rapid and sure fire for the particular arms of the period. With each invention or improvement we find sportsmen and gunmakers alike who refuse to depart from the usual for what appears to them to be the unusual. Great soldiers like the Duke of Wellington have been charged with too great an affection for "Brown Bess," as the musket of the time was called.

During the past century the Rev. Alexander John Forsyth invented a fulminate powder and a lock with detonating mechanism, but, due to the narrow prejudice of the times and the lack of mechanical perfection of the device, his invention was not accepted generally by the public and the trade until a further improvement came forward in the form of a copper percussion cap, the invention of which has been attributed by some to the famous gunmaker, Durs Egg, of London, and by others to Joshua Shaw, of Philadelphia, who produced a copper cap in 1816.

With the possible exception of Joe Manton, who was known to sportsman and duellist alike as "The Bishop of Bond Street," no figure in the then great gunmaking world drew more attention and favorable comment than Ezekiel Baker. Baker, with an active mind and cunning hands, made many improvements to the flintlock, and was possibly more responsible than any

other man for the stubborn resistance the percussion system received when first introduced. He showed for one thing that barrels commonly used at that time did not have sufficient strength to stand the higher pressures developed by the percussion system of firing. He attempts in his writings to show that the improved flintlocks of his make eliminate the chances of misfires, and he was responsible for the introduction of the waterproof pan for the priming powder. He made a stronger cock, or hammer, for his arms, and devised a shorter and more certain downward stroke of the flint against the frizzen, which increased the life of the flint.

Medals from the Royal Society rewarded Baker to some extent for his labors, but apart from this he was rewarded with the first contract for rifled arms to be generally issued to the British forces. His type of rifling with less rapid pitch was soon copied by the famous Swiss makers. The following gives a brief outline of some of the accomplishments of this famous old maker:

Henry Nock's patented breech, introduced in 1875, was actually invented by

Baker and plans given to Nock for the same.

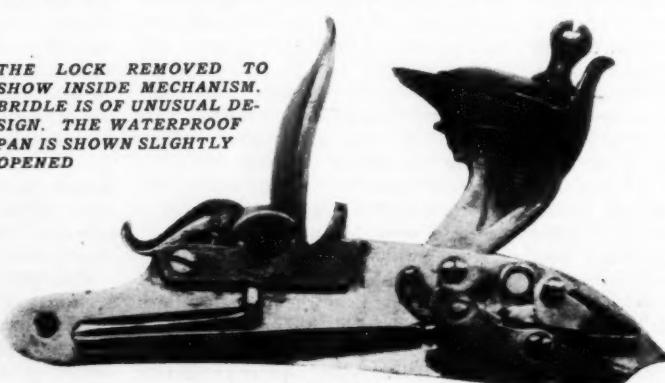
The Honorable Board of Ordnance adopted Baker's suggestion to burnish musket barrels all around, as burnishing them only on top drew them crooked.

An index on breech pins and barrels to show when the pin was turned to the right place to keep the touchhole in the proper position for correct priming, and this improvement was adopted by both the Board of Ordnance and the East India Company in all firearms for their respective services.

In 1800, the government, being ready to raise a rifle regiment, requested different gunmakers to submit arms with rifled barrels for testing by a committee at Woolwich. Arms with barrels of French, German, Spanish, Dutch and American design were submitted and entered in competition. At a fixed distance of 300 yards, Baker's rifle with a 30" barrel defeated all others, and the rifle was adopted as a pattern. Thousands were then manufactured for the government and the East India Company. In 1803 Baker's cavalry carbine with a 20" barrel was accepted by the committee and mounted as a pattern, and the 10th Regiment of Light Dragoons commanded by the Prince of Wales was armed with the Baker rifle of this pattern.

Baker also introduced an improved cavalry pistol with swivel rammer, and a pair of these pistols was ordered by the Prince of Wales (later George the Fourth).

THE LOCK REMOVED TO SHOW INSIDE MECHANISM. BRIDLE IS OF UNUSUAL DESIGN. THE WATERPROOF PAN IS SHOWN SLIGHTLY OPENED



Other inventions can be traced to Baker, including: An improved bullet mould; improved design of lock springs; a machine to make gun and rifle stocks in quantity, and finally, much against his will, a gun lock capable of fire with either flint or percussion to meet the demand of those who wished to enjoy the merits of both systems.

It has been the lot of the writer to fall heir to one of the pistols made by this great old gunmaker for the Prince of Wales in the reign of George the Fourth, and this arm is in a splendid state of preservation. The gold oval on "hand" of stock bears the Royal Crest and motto, "ICH DIEN." The lock is bolted with Baker's improved safety bolt, preventing accidental discharge should the pistol be suddenly drawn from the holster pipe of the saddle. The frizzen spring is fitted with a small roller wheel in such a way that a permanent force is always holding the frizzen to position, and thus keeping the powder in the priming pan securely capped and dry. The perfection of small

usually found on arms of that period when of English manufacture.

Benjamin Robins, inventor of the ballistic pendulum, was the first Britisher to seriously investigate the advantages of rifled arms, and in 1741 he compiled a great deal of data on the advantages of the rifled bore over the smooth, and leading authorities today make reference to his book of experiments. Baker was the first British maker to turn out a satisfactory rifled arm which was not too complicated to place in the hands of the soldiers of his day. Robins' experiments, followed half a century later by Baker's rifle, have made it possible for the modern rifleman to be more advanced than would have been the case if these two patriots had never lived.

As each type of arm can be recognized by its efficiency when compared with other types, so each gunmaker may be recognized by the quality and efficiency of the arms he manufactures. Antique arms of historic times, or belonging to some historic person or other, seem to create in-

perhaps remove the gold-lined pans in the finer pieces—then to the junk pile, to pass from sight forever.

Some old arms have enjoyed a better fate and have passed as heirlooms from one soldier or sportsman to another. Then, again, when some radical improvement came out the owner might take his favorite arm to its original maker, who would allow something for it on an improved arm. Should the old arm not happen to resell, then the maker would place it on the shelf or destroy it; though needless to say the arm as a rule went on the shelf. Other old arms have been kept for historic reasons and have a relation to history as we read it today.

Although their original owners live only in history, the arms of a Prince, a soldier, or a sportsman, even in these days of speed, command the interest and respect of the man who loves the great outdoors, and of the boy who dreams of a "yesterday" and hopes for a "tomorrow." The arms of a master gunmaker of any period have a certain majesty of their own, and a certain balance not found in commoner arms. They served faithfully their day and generation, and some survive to tell their story to generations to come.

Ezekiel Baker made certain arms that compare favorably with the work of the best makers of his time, though only a few of the better examples of his work are to be found today. "Gunnaker to His Majesty" is engraved on his later arms, which position in his day all British makers strove to attain to, and but few succeeded.

AT SEA GIRT

(Continued from page 7)

Virgil Richard, both shooting Eric Johnson barrels.

The Long-Range Individual, for Class B and C men only, was taken by Frank David of Ossining, who scored 189. R. D. Lambert trailed, and Frank Hoppe, Jr., also, with the same score—187.

The Spencer, the 200-Yard Championship open to everyone, was won by Therkil Samsoe, a Sea Girt Championship winner, and the mainspring of the Perth Amboy shooters. Samsoe had 193, which was a nice total. Harry Frohm and Woodring each had 192. The wind was beginning to ease up a bit, and everyone was feeling better.

During the shooting of the Swiss, conditions were only fair. Virgil Richard won with 21 fives, while Fred Pauch, who holds the world's record in this match, was second, losing his 17th.

The Camp Perry Special, the iron-sight match that provides the usual problem as to whether the winner will go to Perry or have the Fecker scope, fell to Fred Kuhn, who has been to Ohio often enough

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ANOTHER VIEW OF PISTOL SHOWING BAKER'S RAMMER SWIVEL AND ENGRAVED TRIGGER GUARD

details such as this were responsible for much of the opposition the detonating or percussion systems received.

With good flints this pistol still retains its old accuracy of over a century ago. It has a balance that even a shot of today could find little fault with, and at twelve paces it is capable of making a reasonably good score on a modern target. Although today no sane pistol shot would advocate a flintlock pistol in preference to the later improved percussion lock arm, it must be admitted that at the time the argument was at its height the percussion system had not been perfected, and the sliding gate or tumbler system invented by Forsyth was not infallible—his special detonating powder being difficult to make with a degree of uniformity, and dangerous to handle when made. Quite often the whole of the detonating powder in the tumbler would explode at one time, and the hunter or marksman would be as good as disarmed.

The stock of the pistol is made from a selected piece of rosewood, and the grip is slightly flattened at the sides and is similar in design to those by Manton or Wogdon of the same period. The side nail, trigger guard, butt cap, hammer, and lock plate are tastefully engraved. The trigger guard shows drums and crossed flags, with a final of pineapple design as

terest wherever exhibited or described. There seems to be no age limit for the sportsmen of yesterday or today. Just put such an arm within reach, and all ages will want to try the balance, line up the sights, and if you are not careful they will pull the trigger to hear the sparks from the frizzen go hissing into the pan as the flint strikes its glancing downward blow. The young will want to fire such an arm, and the old will tell you of similar arms with which their grandfathers killed or frightened crows from the grain fields and orchards.

There are many reasons why fine examples of the old gunmaker's art are hard to find today. The finest examples are scarce due chiefly to the fact that the very best makers could manufacture only a few arms each year, and these they made to special order for an exclusive trade. Such arms were sold for a high figure. Sometimes these arms are found in practically original condition, but more often they will be found to have been converted to comply with certain improvements which came along. The average flintlock sporting arm would pass from master to gamekeeper, and the latter would give it a hard usage each day against vermin on his master's estate; and from there it might go to the Jew goldbreaker, who would strip it of gold or platinum bands and ovals, or

Home-made Accuracy

By VAN DYKE BERIER

AS ECONOMY seems to be the keynote of today, it follows that reloading is essential. But even reloading can become expensive if one has to buy a lot of costly equipment. For maximum loads, a powder measure does not possess the necessary accuracy, so one needs a set of scales. An accurate, dependable set will cost up to \$22.50, so I decided to make my own.

Taking a bar of copper, $1\frac{1}{2} \times \frac{1}{2} \times \frac{3}{8}$ inches, I set to work. This was shaped as in the drawing, a $1/20$ " hole being drilled in the center. This hole was acid-etched, then filled with solder and smoothed off with a file. A needle of medium thickness was tapped through the solder, care being taken to keep it square with the surface of the copper.

The base of the scale, 6 inches wide and 14 inches long, was cut from a stub of mahogany, and the beam support made and

angles to each other, to facilitate leveling the instrument.

The pans were made of tin, peened and bent to shape. The left one is of simple concave shape, for holding the weights; the other was made with a projecting lip to facilitate pouring the weighed charge of powder into the cartridge case. The upper edge of each beam tip was drilled to a depth of $3/32$ inch, using a $3/32$ " drill, to give a perfect countersink. A wire was soldered to each of the pans, bent to the proper shape, and the free end pointed and turned down to engage one of the countersinks and provide a sensitive one-point support.

There should be fastened to the base a wire yoke that encompasses one arm of the beam at about its mid point, for the purpose of limiting the swing of the beam in either direction. This will also serve

This scale, when completed, proved to be a marked success, as it was checked against an expensive set guaranteed to weigh to $1/10$ grain, and seemed to be just a bit better. It certainly is more sensitive. Three granules of a powder like $17\frac{1}{2}$ will swing the charge from a little too light to a little too heavy, but a back check on the charges shows fine uniformity.

The total expense for the scales was \$1.75, not counting time, and they were a lot of fun to make.

Reloading the .22 Hornet

By BYRON E. COTTRELL

THE .22 Hornet cartridge has been so reasonably priced that many riflemen have not fully recognized its reloading possibilities; but a great many riflemen today have a greater surplus of time than of money, and this condition is conducive to efficient reloading.

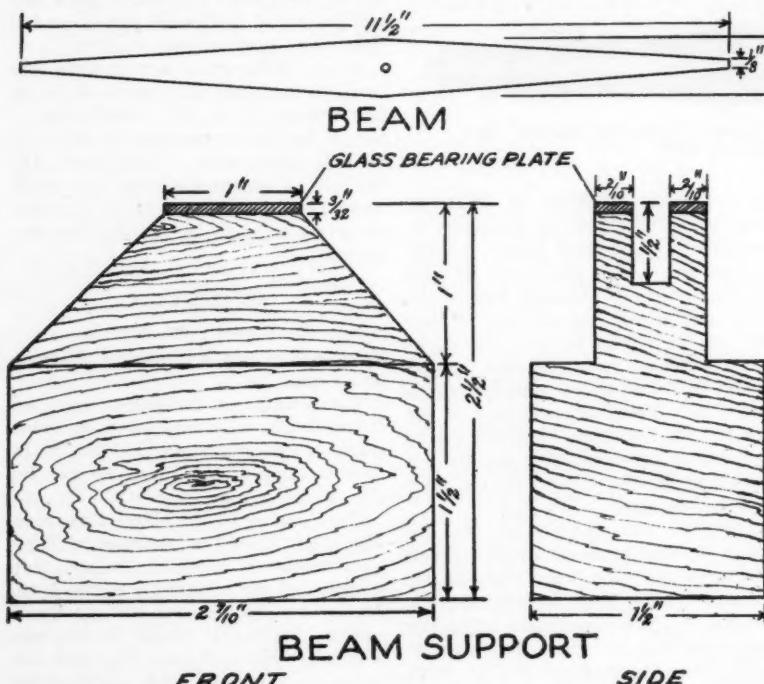
The .22 Hornet is a rimmed cartridge, very easy to handle and reload. When used with nonmercuric, noncorrosive primers, the empty cases will stand many reloadings.

Regular .22 Hornet ammunition can be reloaded at about one-half the cost of the factory product, and special loads of much interest and usefulness can be worked up. I will give a brief account of my own experience in reloading this little cartridge.

As to reloading tools, there are many good ones on the market, and one can choose whatever suits his fancy and pocket-book. I have always liked the Ideal products, so I got the complete set of No. 3 tools. I also got a B. & M. die-and-plunger bullet seater. While this latter was not necessary, it is a very fast-working, accurate seater, and saves a lot of time changing dies in the Ideal handles. This entire outfit cost me about \$10, and will save its cost on the first 1,000 reloads.

In reloading the Hornet Cartridge, make sure that you get noncorrosive primers—for the sake of your rifle. Then for the good of the empty shells be sure that the primers are also nonmercuric. Such a primer is the Winchester Staynless No. 116. Powder for the regular loads will be du Pont No. 1204, and if you wish to try some reduced loads you can use Sporting No. 80, or bulk shotgun smokeless. You can get the regular bullets from any of the leading companies in soft point, full patched, or open point, as you prefer. The soft point seem to give the greatest accuracy.

If you want to try cast bullets, I recommend Ideal No. 225415, a gas-check bullet that weighs about 48 grains. They should be cast hard, one to ten. Using this bullet and 5 grains of No. 80, I have obtained



fitted centrally to it. The small glass bearing plates were then cut, and affixed by plastic wood. The drawing makes the construction clear. The beam was now fitted into place, resting on the glass plates, and very carefully balanced. Two small pieces of wire, bent into a U shape, were set astride the beam, and moved about until fine adjustment had been secured. Two small spirit levels, costing 15 cents each, were screwed to the base, at right

angles to indicate when the beam is level.

Weights, ranging from $\frac{1}{2}$ grain to 50 grains, are necessary. These may be made of sheet aluminum, checking them against other weights of known value—your druggist, perhaps, assisting you here. Aluminum possesses the advantage of being light and bulky, making weights that are of maximum size and easy to handle. It is also soft and easy to cut. Weights may also be bought through your druggist.

fine accuracy. This is a very useful load for squirrels, and for target practice. The cost is about \$8 per thousand when you cast your own bullets. I have also obtained satisfactory results with this same bullet and 9 grains of No. 1204. The velocity of this load must be around 2,000 feet. The accuracy is good, and up to 60 yards it shoots to the same sighting as the standard factory load. This is a very useful load, and costs only \$8.75 per thousand to make up.

The standard .22 Hornet load—the one that made the Hornet famous—can be duplicated by using factory bullets and 10.8 grains of No. 1204 powder. The accuracy will equal that of the factory loads, if the loading is carefully done. The cost is \$15.30 per thousand.

There is a new Hornet load that gives

3,000 feet velocity. I have been using this load for some time, and it is a mighty nice one. The bullet is a 36-gr. soft point, and the powder charge is 11.6 grains of No. 1204. However, most of my shooting with this bullet has been with a charge of 12 grains of No. 1204, which must give well over 3,000 f.-s. I have had no trouble with this load, and it gives greater killing power on small game. The bullets usually stop in woodchucks. It is not a long-range load, and was developed to serve as a safer game load, free from ricochets.

Then there is a 40-grain bullet, also a soft point, and 11.5 grains of No. 1204 gives it a velocity of 2,800 f.-s. I have killed quite a lot of game with this bullet, including woodchucks and squirrels. It has better accuracy at long range than the 36 grain, as would be expected, and there

is not much difference in the killing power of the two loads.

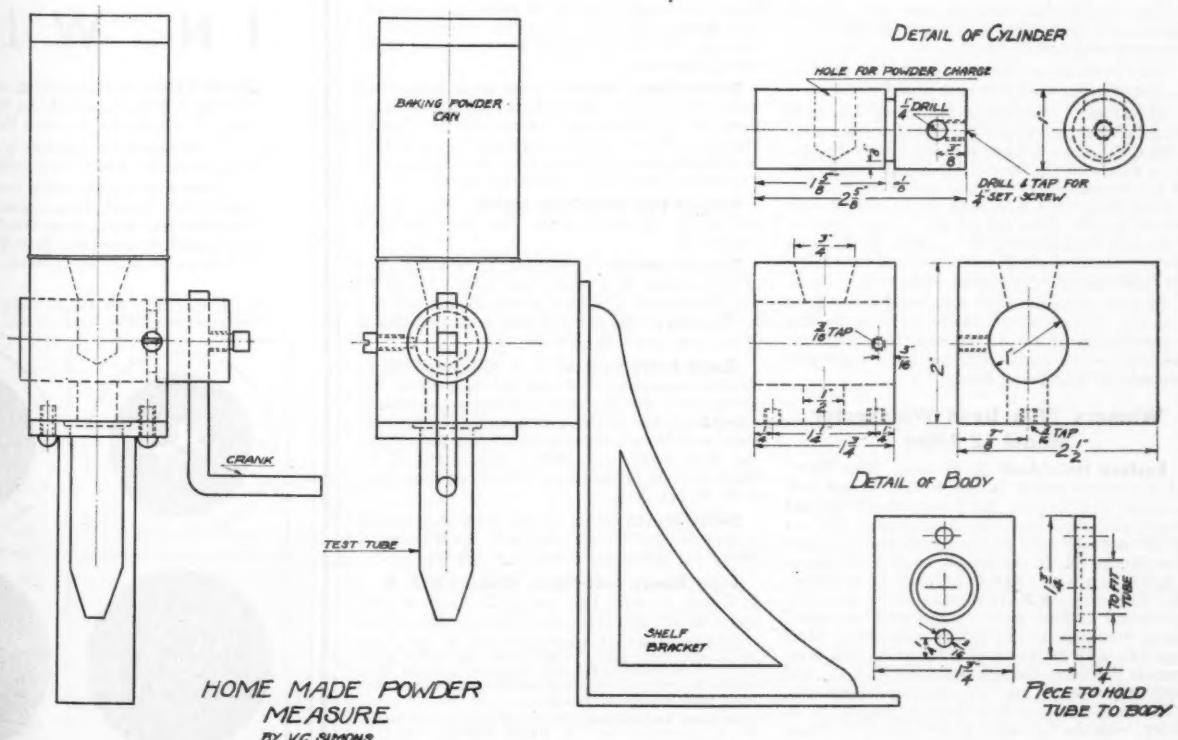
Both of the above bullets are made by R. B. Sisk, of Iowa Park, Texas, and their price is about the same as that of the regular bullets. They are nicely made and of correct diameter. Either of these reloads costs about \$16 per thousand.

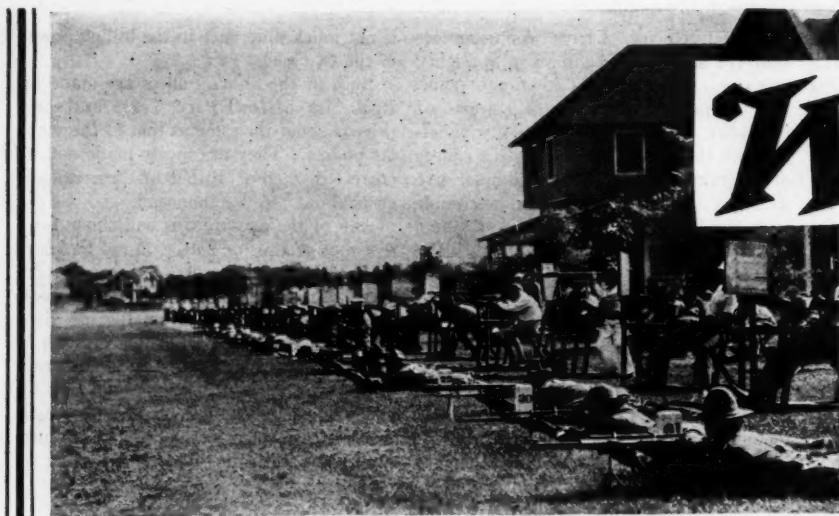
Any of the above loads will shoot 1½" five-shot groups, or better, in my Sedgley-Springfield, at 50 yards.

About two years ago the .22 Hornet took first place as a modern small-game rifle. Today it is holding that place, with a steadily-increasing margin. Special cartridges and loads are being developed by some riflemen, that are claimed to equal, or possibly better, the results obtained with the .22 Hornet, but as yet none of these cartridges are on the market.

A Home-Made Powder Measure

THESE drawings of a home-made powder measure were sent to us by our good friend, Mr. V. C. Simons, Instructor of the Manistee High School Rifle Club, of Manistee, Mich. In writing about this powder measure Mr. Simons says: "It is nowhere nearly as nice as an Ideal or Bond, but it has a redeeming feature or two in that it is easily made, and it works. The cylinder is made of brass or steel, and a hole drilled to the depth that will give the desired powder charge. The exact depth is found by trial and error. If one has two or more pet loads, he will make as many cylinders. The body block is made of cast iron, brass, or maple. A baking-powder can makes a good hopper. The loading tube is made from a chemist's test tube. The funnel end is made by holding the glass over a flame, and pulling the ends until the desired shape is reached; then cutting it in two."





WINCHESTER

HIGH CLASS

DOMINATE THEM

AT SEA GIRT . . . in the Eastern Small Bore Championship Matches

WINCHESTER rifles were supreme as usual. Here in this classic annual tournament, held under New Jersey State Rifle Association auspices June 30th-July 4th, were many of the country's leading small bore marksmen. All could not win. But those who did win, and the other high score men in the reckoning—shooters whose judgment is very rarely at fault—staged another Winchester walk-over through their almost unanimous use of the Winchester Model 52 Rifle.

The 7 individual matches won with perfect scores were won with Winchester Model 52—4 equipped with special barrels.

The 3 perfect scores made by individual shooters in team matches were won with Model 52s.

The Spencer—the Eastern Individual—the Individual Grand Aggregate—the 300-Yard Individual—the Class B and C Long Range Individual—ALL were won with the famous Model 52. Eleven out of the 18 individual matches were won with it—not counting the 5 won with the Model 52 with special barrels. Two out of the 3 team matches were won with Model 52s . . . half the winning team in the third match used them and their highest individual score was shot with one.

And not alone the highest scores—but the great majority of high scores, nearly 80% of the 200 highest scores shot in 18 matches, 75% of all the possible—were made with the same supremely dependable Winchester Model 52.

Winners Who Used Winchester Model 52 Rifles

Eastern Individual—50-yd. stage, Russ Parry, M. Kemmerer and E. B. Smith, each with a 9-X possible, tied for first. All 3 shot Model 52s and Smith also used Precision Ammunition. Six out of the next 10 who finished with perfect scores shot Model 52s. In the 100-yd. stage, E. O. Swanson was first with 100-8X, followed by J. Onkey, W. T. Bryan and R. D. Berkheiser in the order given and all with perfect scores—the last-named using Precision. In the 200-yd. stage, C. C. Held was first with 98, shooting a Model 52 and Winchester Precision. George Sider and T. Riley, 2nd and 3rd with 97 and 96—shooting Model 52s. Then in the Eastern Individual Aggregate, T. A. Riley, with the fine score of 295, and C. C. Held, 293, took 1st and 2nd with Model 52s, Held shooting Winchester Precision.

Eastern Team Match—High man on winning team, J. A. Onkey, 291, and 10 members of the next 3 teams shot Model 52s. A. J. Thill, highest man in the match, shot a Model 52.

Palma Individual—Frank C. Hoppe, first with the only perfect score, the highest ranking possible shot in an individual match during the tournament, a great achievement for a Class C shooter making Class A, shot a Model 52 with special barrel and stock. P. R. H. Washburn, runner-up, Paul Monty, 3rd, C. C. Held, 4th, each with 224, also shot Model 52s, Held likewise using Winchester Precision.

Palma Team Match—Bear Rock Rifle Club Team No. 1, C. C. Held, Marlin Kemmerer, Russ Parry, W. B. Woodring, winners with the remarkable score of 897. All 4 shot Model 52s, and Held with Winchester Precision duplicated his score of 224 made in the Palma Individual Match.

Eastern Two-Man Team Match—W. T. Bryan and E. O. Swanson, score 786, both shooting Model 52s.

Spencer Match—T. Samsoe, his winning score of 193 leading by 1 point, won with a Model 52 and Winchester Precision. Harry Frohm and W. B. Woodring, 2nd and 3rd each with 192, and 8 of the next 9—all shot Model 52s.

Camp Perry Special—J. B. Miller and W. R. Walsh, respectively 2nd and 3rd, each tying the winner with the fine score of 397 but outranked, shot Model 52s. In this match, among high scores made with Winchester Precision were the following: E. B. Smith, 395; Walter Stokes, 394; C. C. Held, 393; E. O. Swanson, 392; T. Samsoe, 392; S. T. Moore, 392.

Swiss Match—Nine of the 11 highest scores shot in this match were made with the Winchester Model 52 Rifle; exceptions, 1st and 8th places.

Long Range Individual, Classes B & C—F. David, 1st with 189, and R. D. Lambert, 2nd, and 5 of the next 8 shooters—all shot Model 52s.

Individual Grand Aggregate—W. B. Woodring, the winner, 1101; Harry Frohm, 1099, 2nd, and 5 of the other 10 shooters scoring 1092 or better, used the Winchester Model 52. C. C. Held, one of the 6 finishing with 1092, used Winchester Precision.

50-Yard Individual—The 2 high men in this match, W. P. Schweitzer, 200-15X, and S. Tekulsky, 200-12X, and M. Kemmerer, tied for 3rd with 199-16X, used Win-

(Continued on last column)

Winchester Model 52
Small Bore Match Rifle



THEM

If you are interested in getting into competitive shooting, get the Winchester Model 52. Sold and by specialists in gun equipment. Descriptive folder, price lists, etc.—FREE. And for many satisfied Winchester Precision users.

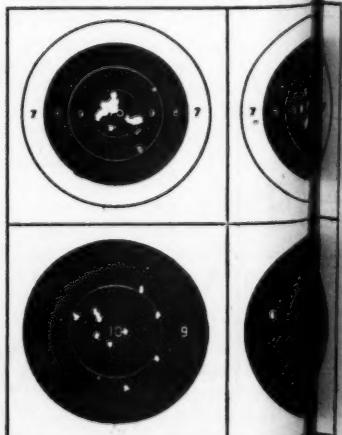
IN WISCONSIN

SHOOTING in competition at Sparta June 25th using a Winchester Model 52 Precision score of 398 on the standard Dewar Court.

"I dropped the 2 points at 100 yds. wrote Mr. Kling, "because I was using my 200 Pre-

Wherever expert small bore men meet in Wisconsin, New Jersey, Connecticut, all the But those who enter with Winchester 52 Rifle—which everywhere show them for high confidence in their equipment.

Mr. Kling's 398 x 400 Dewar Court in Sparta on June 25th. Above, 50 yds.; below,



WINCHESTER

MARK CORES AT THE RANGES



THEM FOR BETTER SCORES

After determining a suitable rifle for small bore shooting, investigate Winchester Model 52. Sold by leading dealers and specialists in gun equipment. Write for catalog, details of the new Speed Lock and for only satisfactory scores, buy Precision ammunition.



ICON SIN

on at 25th, John F. Kling, of La Crosse, won Model 52 Precision Ammunition, shot a remarkable 200 yards. At 100 yards Mr. Kling, "One out for elevation using Model 52 Precision, which sure is fine stuff." Small bore meets in competition, whether in Wisconsin or Connecticut, all the good shooters can't be winners. Winchester Model 52 Rifles and Precision match ammunition, now they're for highest scores—are secure in their

John F. Kling, La Crosse, Wis., big man on the 1932 American Dewar Small Bore Team.



AT EAST HAVEN...

in the Connecticut State Small Bore Tournament

HELD June 23-25, this first shoot of its kind in the state had three outstanding features—the large number of contestants, the high scores, and the remarkable showing made with Winchester Rifles and Ammunition. Two of the three winning perfect scores were shot with Winchester Model 52 Rifles.

Shooters Who Won with Winchester

The following summary gives only the most outstanding scores, selected from those of the 203 shooters who participated:

50 YARDS RE-ENTRY—Robert Gadd, Jr., 1st with 299, Model 52. **INDIVIDUAL SHORT RANGE** (50 yds.), Iron Sights—Robert Nisbett, 1st with 199, Winchester Precision; 2nd, C. E. Lyman, Jr., 199 with Precision. **INDIVIDUAL SHORT RANGE** (50 yds.), Any Sights—L. E. White, 1st with 200-9X with Model 52; W. P. Schweitzer, 2nd with 199-13X with Model 52 having special barrel; Sam Tekulsky, 3rd, 198-11X with Precision; Robert Nisbett, 4th, 198-5X with Precision. **INDIVIDUAL MID RANGE** (100 yds.), Iron Sights—C. E. Lyman, 1st, 200 with Precision; H. F. Anthony, 3rd, 194, and Sam Tekulsky, 193, 5th, both with Precision. **INDIVIDUAL MID RANGE** (100 yds.), Any Sights—Six of 10 highest scores: 3rd, Sam Tekulsky, 197-6X; 4th, E. B. Smith, 197-5X; 5th, R. Nisbett, 196-6X; 8th, J. W. Hession, 195-5X; 10th, W. A. Dallas, 191-1-8, all shooting Precision match ammunition. **INDIVIDUAL LONG RANGE** (200 yds.), Iron Sights—Sam Tekulsky, 191 for 4th place, 2 points below the winner, with Precision. **INDIVIDUAL LONG RANGE** (200 yds.), Any Sights—S. T. Moore, 1st, 196, with a 1-point lead with Model 52 and Precision. **INDIVIDUAL GRAND AGGREGATE** (50, 100, 200 yds.), Iron Sights—Sam Tekulsky, 3rd, 576 with Precision. **INDIVIDUAL GRAND AGGREGATE** (50, 100, 200 yds.), Any Sights—W. P. Schweitzer, winner, with 591, Model 52 with special barrel; S. T. Moore, 2nd, 589 with Model 52 Rifle. **CONNECTICUT ALL-AROUND INDIVIDUAL CHAMPIONSHIP** (50, 100, 200 yds.), Any Sights—S. T. Moore, 2nd, 291, tying the winner but outranked, with Model 52 Winchester. **CONNECTICUT ALL-AROUND INDIVIDUAL CHAMPIONSHIP** (50, 100, 200 yds.), Iron Sights—Sam Tekulsky,

1st, 290 with Precision, and E. B. Smith, 2nd, 290 with Model 52 and Precision. **CONNECTICUT TWO-MAN TEAM MATCH** (50, 100 yds.), Iron Sights—Sam Tekulsky, of the winning team, 195 with Precision; E. J. Doyle, 198, next to the highest score shot in the match by an individual, with Precision. **TWO-MAN TEAM MATCH** (50, 100 yds.), Any Sights—E. J. Doyle and W. A. Dallas, 2nd and only 1 point behind the winning team, with Model 52 and Precision. **LONG RANGE TWO-MAN TEAM MATCH** (200 yds.), Iron Sights—Sam Tekulsky, high man by 3 points on the winning team, 193, with Precision. **SPECIAL DEWAR COURSE MATCH** (50, 100 yds.)—L. E. White, winner, 395, Model 52; H. F. Anthony, 3rd, 391, with Model 52 and Precision. **RE-ENTRY** (50 yds.), Iron Sights—Robt. Gadd, Jr., winner, 300-23X, Model 52. **RE-ENTRY** (50 yds.), Any Sights—E. B. Smith, 1st, 300-22X with Model 52 and Precision. **100 YARDS RE-ENTRY**, Iron Sights—H. F. Anthony, 1st, 297, with Model 52 and Precision.

(Continued from second column)

chester equipment. Schweitzer shot a Model 52 with special barrel; Tekulsky used Winchester Precision Ammunition; Kemmerer shot a straight Model 52, C. C. Held, 5th with 199-15X, shot a Model 52 and Precision. W. B. Woodring, 6th with 199-14X, shot a Model 52. In the 198 string, E. O. Swanson was high with 198-15X, shooting Model 52 and Precision.

100-YARD INDIVIDUAL—Again W. P. Schweitzer was high man with a perfect score, 200-8X, shot with his Model 52 with special barrel. And again C. C. Held, shooting Model 52 and Precision, came through with a high 199—this time 199-11X, for 3rd place. Shooting Model 52 and Precision, R. D. Berkheiser took 5th place with 198-13X. Another fine score with the same all-Winchester combination was shot by E. O. Swanson—198-7X. Every man finishing in the 198 string shot a Winchester Model 52.

90-YARD INDIVIDUAL—Henry Haase, the winner with 94, and 7 out of the 8 other shooters in the top flight scoring 90 or better, shot Model 52s.

JERSEY CITY SPECIAL—Frank Frohm, with a clean winning score of 190, E. A. Donaldson and F. Pauch, respectively 2nd and 3rd, each with 187, all shot Model 52s—Frohm with a special barrel. Likewise Harry Frohm, 5th, Walter Stokes, 6th, and E. O. Swanson, 7th, all scoring 186. Stokes and Swanson used Winchester Precision. Among those scoring 182, Chas. H. Johnson and T. Samson both shot Precision.

In the 50-yard re-entry, 7 of the 9 who turned in possibilities shot Model 52s. In the 100-yard re-entry, the two high men with perfect scores shot this rifle. In the 200-yard re-entry, 1st and 2nd went to users of the Model 52, and the 3 leaders in the 300-yard re-entry match all used this dominant small bore target rifle.

WINCHESTER REPEATING ARMS COMPANY, New Haven, Conn., U.S.A.

SOME OBSERVATIONS ON LOADING THE .25 ROBERTS CARTRIDGE

By EDWARD W. PAINE, M. D.

MY FIRST telescope-sighted rifle was a Springfield, mounted with a 6-x Fecker glass. I used this combination for several seasons, but as I never shot at anything larger than woodchucks and never succeeded in developing an accurate light bullet load, I sent the gun to Niedner and had him re-barrel it for the .25 Roberts cartridge—the 7-mm. case nicked down to .25 caliber. This gun has been very satisfactory for crow and woodchuck shooting. Both this rifle and the Springfield, however, have had one very annoying peculiarity—the point of impact would change from day to day.

I would sight the gun in and have the load centering beautifully, and the next day it would be all off and need one or two clicks of the adjustment screw to bring it back to center. It was always necessary before going out for a day's shooting to tune the rifle up just about as one would tune up a violin. This phenomenon was not confined to any one load, but existed with practically all loads. I tried practically every .25-caliber bullet on the market; it would be tedious to enumerate them all. I talked with those of my friends who shot high-power telescope-sighted rifles, and they all had the same story to tell. So I accepted this as one of the inescapable annoyances that go with this form of sport. As a matter of fact, it was so much of an annoyance that I was about ready to give the game up, for certainly a gun that has to be sighted in each time it is taken out is anything but a pleasant companion. However, something turned up that put a new complexion on the whole problem.

In most talks on loading these .25 special cartridges, the 60-grain bullet is passed by. Most writers say that the 87-grain bullet is as light as one should bother with; that nothing is gained by using anything lighter. Up to recently my own experience bore this out. I had tried the 60-grain Remington bullet and decided it was too light to develop enough pressure to properly burn any powder such as No. 20, No. 17½, or No. 1147. There did not seem to be much velocity, much accuracy, either; and judging from the big muzzle flash, a good deal of the powder reached the muzzle unburned.

I was talking these things over with a friend who has done a good deal of experimenting, and he told me of his experience in using the 60-grain bullet. He had noticed the things that I have mentioned, and thought that the remedy might lie in the use of a priming charge behind the slower-burning powder; so he put in 2 grains of King's Semi-Smokeless and a shellful of No. 1147, and got re-

sults at once. Following this suggestion I worked up a charge for my .25 Roberts consisting of 2 grains of King's Semi and 42 grains of du Pont No. 17½. I seated the 60-grain bullet as far out of the case as possible, and tried it out at 100 yards.

At once I noticed that I was shooting a different load. There was no muzzle flash at all, velocity was evidently very high, and accuracy, rather to my surprise, was as good as that of any load I had ever shot. The most surprising thing of all in connection with this load, however, is the fact that the point of impact remains constant, or so nearly constant that I can detect no change from day to day.

Personally, I believe that this is the best load obtainable for anything up to coyote. Since I began shooting it I have made a good many clean kills on chucks at ranges around 150 yards, and two at a trifle over 200 yards. I sight in my rifle to shoot about 2 inches high at 100 yards, and hold dead on for anything up to slightly over 200 yards, beyond which range a chuck looks so small through a 6-x glass that hitting him is largely a matter of luck. Crows at ranges around 100 yards are spread over the ground in a most satisfactory manner. These Remington bullets are cheap, costing, when I bought them, less than \$1 a hundred. Why this load holds its point of impact so well I can't explain. Perhaps the lighter bullet sets up less barrel vibration; but I am no ballistic engineer, and those matters are too deep for me.

The fact remains, however, that the above-described combination has some points of superiority over any other .25-caliber load known to me, and it is certainly worth more extended trial.

LIKES ENGERT'S LOAD

DEAR EDITOR:

In the February, 1932, issue of *THE RIFLEMAN* there appeared an article by Mr. J. F. Engert entitled, "Hard-time Loads for the .30-'06." Mr. Engert's vermin load of 48.6 gr. of Pyro and the Western .32-20 bullet of 115 grains appealed to me, and, after considerable waiting, I finally got hold of 100 Winchester 115-gr. .32-20 bullets. I pulled the Service slugs from some 1918 Government issue stuff, and seated in the .32-20 bullets. I didn't make a very good job of it, as I didn't know just how deep to seat these .32-20 pills.

Well, I rammed them home as deep in the case as their diameter, and I had trouble in starting some of them, due to the fact that they were a bit oversize, even with the necks of the shells expanded from pulling out the old bullets. I used the Ideal No. 10 tool with the double

adjusting chamber, and will say right here that I am not very well pleased with the seating screw furnished for these bullets. I am of the opinion that the cone in the screw should be deep enough to take the exposed lead in a nice, snug fit. This, I believe, would prevent the upsetting of this soft point.

I didn't take time to weigh the powder charge; just took it from the Ideal Handbook that the cartridges contained 48.6 gr. of Pyro. I found out differently, later, however. They don't; that is, not all of them. Some of them carry more.

The first two that I loaded I fired in the basement, and I was put on the spot right off. Mrs. Morby complained of falling plaster, and rattling windows, so I had to quit for the day. I made a very important discovery, though. I found the recoil to be very moderate.

I made a better job of it next time. I seated the bullets so they would just meet the lands, but they were deep enough to work through the magazine O. K. I took ten of them out and tried them. I got into the bottom end of a five-pound lard pail the first shot, at 75 good strides. A bit low, though. Three points of elevation put it close enough on the next shot, and the third one smoked through just an inch from the other.

I was ready for battle, and I proceeded to the battleground. After waiting for perhaps 30 minutes I spotted a big chuck through the glasses, and a bit of maneuvering on my part put me within 100 yards of him; that was close enough. I crawled into the sling strap, cuddled down into a nice position, and brought the gold to rest on what I took to be his shoulder. I took a normal breath, and let part of it out; held the rest, and squeezed. At the crack of the Sporter Mr. Chuck went three feet in the air and came down with all four feet up. The shot went low, and such a mess as it made of that chuck is nobody's business. The next shot took a jackrabbit through the shoulders at 125 steps (and I can step!). More sausage. I made sausage of two more, and decided that I had better get out of the sausage business.

I'll close this by thanking Mr. Engert for his tip. And let me add that, hard times or any other times, I have never used a more effective load than Mr. Engert's vermin load, and I am sending for another hundred .32-20 bullets soon.

Very truly yours,
(Signed) W. H. Morby, Secretary,
Blackfoot (Idaho) Rifle and Pistol Club.

P. S.: On weighing the powder charges from the Service ammunition that I have I found them to vary from $\frac{1}{2}$ to $2\frac{1}{2}$ grs. either way. The powder charge that I used last weighed just 48.5 grains. It burned clean, and the bullets left no fouling.—W.H.M.

Checking Fore-ends

Editor, AMERICAN RIFLEMAN.

Dear Sir:

Mr. E. C. Lenz's exposition of the art of checking rifle stocks, which appeared in the March and April issues of THE RIFLEMAN, was to me extremely interesting. However, his method of laying out straight master lines in the fore-end checking area appears to me to be open to criticism.

He has correctly stated the problem as that of laying off a straight line on a curved surface, and properly emphasizes the necessity of having the line perfectly straight. Also, he has illustrated his idea by an excellent design drawn on a plane surface, in which all lines are straight, as they should be. But when he is ready to apply this design to the curved surface of the fore-end, he abandons the nice straight lines on the paper pattern, and uses, instead, the line formed by the

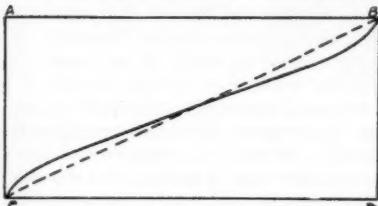


FIG. 1.

diagonal intersection of a plane surface with the curved surface of the fore-end. I can conceive of no case in which this method will produce a straight line.

In order to clear up the situation in our minds, let us try a simple experiment. First find some cylindrical object—a rolling pin is fine—to serve as a substitute for our fore-end. Now cut out a rectangular piece of paper, wide enough to reach half way around the rolling pin, and 6 or 7 inches long. On this paper draw a straight line between two opposite corners. This represents our master line, the dotted line DB in Fig. 1. Then place



FIG. 2.

this paper on the rolling pin, with edges AB and DC running lengthwise, and fasten in place with rubber bands, or pins in the corners. Look at your diagonal line from a distance of 3 or 4 feet. Hold the edge of a ruler along it. Does this line look straight? It does not. But you know that it is straight.

Now follow Mr. Lenz's directions, and cut out your cigar box wood so that the

edge touches the points C and B, and fits snugly across the curved surface. Run your pencil point across the paper using the cigar box plank as a guide. Now remove your paper and spread it out flat. You will have a curve resembling the solid line in Fig. 1, even though you went "straight over the hill." What would a crooked master line like that do to your little diamonds and carefully-drawn scallops?

Carrying the experiment further, apply Mr. Lenz's scheme to the semibeavertail



FIG. 3.

of a Winchester 52. If I can visualize the result with any degree of accuracy, your cigar box wood will look something like Fig. 2, and when the paper is removed from the stock, your master line will look like Fig. 3. It looks to me like impending disaster.

Why not establish the master lines by simply running a knife edge along the already-laid-off lines on the paper design while it is still cemented to the work?

Now, Mr. Editor, I humbly confess that I have never held a checking rasp in my hand, but I have been troubled by visions of tyro "checkers" innocently putting their faith in cigar box lids, and regretting it thereafter. Am I right about this curved straight line business? I wonder if Mr. Lenz himself uses this scheme which he recommends as a "positive method for the amateur".

Loyally yours,

C. V. WEATHERFORD.

S. A. Colt Alterations

Editor, AMERICAN RIFLEMAN.

Dear Sir:

You have given space to many interesting items on new models and altered arms, and I thought that perhaps the revolver shooters who prefer the Colt Single Action might be interested in what I have done. They will, at a glance, note the difference between the two guns in the picture.

First and most important in a revolver is a fast hammer and light hammer jar, so I cut the nose off the hammer and fastened it, with the firing pin, to the frame where it originally rested when down, thereby removing about 30 per cent of weight.

I altered the working parts so that the hammer travel is shortened by at least 30 per cent, and the cylinder times perfectly.



I altered the grip by inlets the front end of the top strap into the frame, just below the gate opening, which affords a firmer hold but gives a grip that is not as high as that of the Bisley Model. I cut six extra stops in the cylinder as a safety feature when the cylinder is loaded in all six chambers. The caliber of this gun was .38 Special, and by enlarging the chambers .006 inch the functioning and accuracy in the gun of the following cartridges are all that could be asked for: .38 S. & W. regular; .38 Long Colt; .38 Special; and the .38 Automatic.

I replaced the regular, flat mainspring with a coil spring with adjustable tension. The trigger-and-bolt spring was also replaced by one made of piano wire, which is unbreakable.

I know that the independent firing pin is condemned by most authorities on revolvers, but I have not had any trouble so far. This arrangement permits of a close fit, keeping the firing pin always in the same place; and the primer cannot blow back through the firing pin hole to lock the cylinder, as has happened many times with the regular hammer.

I hope what I have written will interest the readers as much as your other articles have interested me.

R. T. WHITTEN (Gunsmith).

A Simple Way to Prevent a Loose Sight From Shifting

DILL and tap hole in base of sight as shown in cut, and countersink. If a regular countersink is not at hand a larger drill may be used. Fit a screw in hole,



and after sight is properly lined up, tighten screw. Size of screw to be used depends upon type of sight, etc.

—PRESTON WALLACE.

AT SEA CIRT

(Continued from page 13)

to know his way around. Fred had to be satisfied with 397 this time, to outrank J. B. Miller from Lewisburg, Pa., Walter Walsh of Union City, and H. H. Mason of Atlantic City, all of whom were three down, the X's deciding their order of placement.

There must be something about that Arabian-Harem topper of Bill Schweitzer's, because Bill won the 50-Yard Individual with another 200. Sam Tekulsky punched the same in the short-range bulls, while Marlin Kemmerer and Eric Johnson each dropped one.

The "Joisey City Special", which is not an ice cream sundae, but a four-position rifle match, was Frank Frohm's favorite dish, and so the firm of Frohm & Frohm have won another. F. A. Donaldson was second and Fred Pauch third with 187. Frohm had a total of 190. A tough match to win, and an equally tough one to lose. It had a fair entry this year, and was the first of its kind for some years here in the East.

W. B. Woodring, as previously mentioned, was the hard-shooting young man to win the Grand Aggregate, the mythical shoot consisting of the aggregate scores of the Palma Individual, Spencer, Eastern Individual Championship, and Camp Perry Matches.

Over on the pistol range they scratched the Monday's matches and fired only the 30-shot Any Pistol Match. The first relay began about 10 a.m., and fired right into a 10-o'clock wind of irregular characteristics and difficult of judgment. In the morning shooting Harry Russ of Wilkes Barre was a very creditable performer, he getting 260, which was real shooting and equal to 280 or better on a calm day. Captain Amundsen of Plainfield was second, with 245, while Landis followed with 243. From there the scores dropped into the 30's. In the afternoon the weather improved materially, and after shooting very creditably on the rifle range, Walter Walsh of Union City came through with 265 to win the Gold Medal. It is interesting to know that he used a Colt Woodsman with very heavily-weighted barrel and a special long grip. Walter fires left-handed. H. F. Trapp, shooting a very heavy and short Smith & Wesson .38, made third, with 248. Other competitors were unable to exceed 237. Russ shot a 10-inch Smith & Wesson 1905.

THE .45 COLT AUTOMATIC

(Continued from page 11)

told. If the flinch (or reaction) does not take place until the sound of the explosion, the bullet will have left the muzzle before the flinch can interfere. On the

firing line, and especially in rapid fire, a man may flinch at the explosion of some pistol other than his own, just as he fires. This is fatal to good shooting, and to avoid it all firers should plug their ears with patches of cotton before going on the firing line.

Correct position, grip and trigger squeeze can be acquired by a little practice on the part of the individual who is sufficiently interested. This can be done to a great extent by "dry" shooting, or snapping the pistol, both slow and rapid fire, at a target. But for this to be of any value, just as much pains must be taken in all respects as if the individual were engaged in a competition. However, the muscles and joints of the arm and wrist must become accustomed to the shock of the recoil, and this can be accomplished only by firing the pistol. At the beginning, from 10 to 20 shots a day will be plenty. As the joints get used to the shock this number can be gradually increased.

The new stable mate to this weapon, the splendid Colt "Ace," is a veritable God-send to those who have an opportunity to shoot only in indoor galleries, or to whom the .45-caliber ammunition cost seems prohibitive.

THE '03 WINCHESTER

(Continued from page 9)

upon; and it is also a great gun for cotton-tails. I know a man who will get as many of these, running, with his '03 Winchester as a pretty fair shot will bag with a shotgun.

It often happens that we look at an old cherished gun, and wish that certain things could be changed. And because such changes can so seldom be made, it is all the more fascinating to see a gun that has been used for nearly thirty years completely rejuvenated.

The changes necessary to adapt the Winchester '03 to handle the long rifle cartridge are: Relining of the barrel for the .22 long rifle, or fitting a new barrel (the '03 barrel is nearly large enough to allow the long rifle bullet to drop through); altering the magazine; altering the head of the bolt to fit the head of the long rifle cartridge; installing a new ejector.

It must be remembered that the .22 Winchester Automatic cartridge is considerably shorter than the long rifle cartridge, and the case is larger in diameter, there being a tiny "bottle neck" right at the bullet. The rim of the case is about twice as heavy as that of the long rifle.

NOTE: Since the above was written, Mr. Addicks has converted my brother's rifle also, with equally satisfactory results.

Principal Contributors in This Issue

HERVEY LOVELL, with us again in this issue, is not only a gunsmith and skilled worker in wood and metal, but is also an experimenter, and a beef and turkey shooter. He combines a scientific type of mind with a pair of skillful hands.

We have another old friend with us this month, M. A. COOPER, of Rome, Ga. Mr. Cooper is generous in his admiration of the work of others, but we have prevailed upon him to write for us something on his own, amateur experimenting in his little home workshop, and this we hope to publish in the not too distant future.

After mentioning his early fondness for firearms, and experiences with them, CAPT. C. B. BYRD continues: "It was not until I was commissioned a lieutenant in the Philippine Constabulary in October, 1914, that I really began to learn something about shooting. The Philippine Constabulary was at that time armed with the Krag carbine and the .45 Colt revolver, both of which are excellent weapons. I really learned as much, if not more, in coaching soldiers as in firing myself.

"Shooting the carbine came easily to me, but the revolver demanded considerable practice. After I was transferred to Jolo, no remonstrances or advice from superior officers was necessary to cause a remarkable improvement in my pistol marksmanship; the well-known "disposition" of the Moros being the answer."

We wish that space permitted us to publish in full the letter from MAJ. ERNEST E. TOWNSLEY, of Vancouver, Canada, but can give only a few of the highlights: "For a good many years I have represented one of the oldest and best known firms of gunmakers in England, and have recently been responsible for the introduction of a new telescopic sight which has been favorably commented on by some of the greatest authorities.

"It is my lot to own a very fine collection of ancient and modern arms, including those by the greatest makers. This collection includes the famous Colonel Lee collection. Colonel Lee, you will remember, wrote from time to time for the London Field on old arms.

"Photography and the collecting of fine old arms has been my hobby since a boy. I find these two hobbies go hand in hand and make it possible to pass along the others a great deal of detail not commonly known today, but which can be proven from available records published and photographs of the actual arms and mechanisms.

"Complete catalogues of The Tower Collection and other fine collections are in the writer's possession, also many old books on the subject."

Connecticut's First Annual Small-Bore Meet

THE First Annual Small-Bore Tournament of the Connecticut State Rifle and Revolver Association introduced to the 203 shooters who competed in the 3-day program of matches three notable innovations, which helped materially in satisfying the participants and in making the meet a huge success.

First among these departures from the usual was the use of rows of laths from the firing line to the targets on the 50-yard and 100-yard ranges, spaced about 6 feet

apart. This novel arrangement kept competitors from shooting on any target but their own. As soon as the sights strayed from his particular target, the shooter found himself aiming at a row of the laths and, of course, immediately turned back to his target. The laths were set upright in the ground and from prone position had the appearance of an alley direct from the firing line to the target.

Second was the slashing of the entry fees to 50 cents in all but two of the matches which offered the shooters three full days of shooting at minimum expense. This reduction found great favor among the contestants, especially in view of these days of slim financial income for most of us. The low fees, of course, made the prize money small in amount, but the competitors got just as much satisfaction winning the lesser returns as they would winning more.

The system of awarding merchandise prizes was third among the new details of the "New Deal" for the shooters of Connecticut and adjoining states. Winners of cash prizes in a match all had an equal chance for the merchandise—their

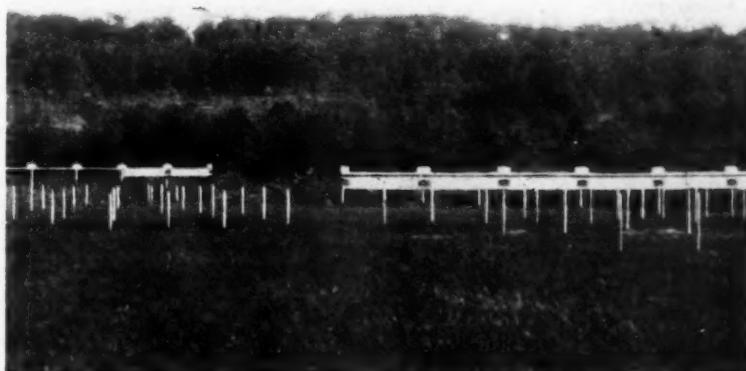
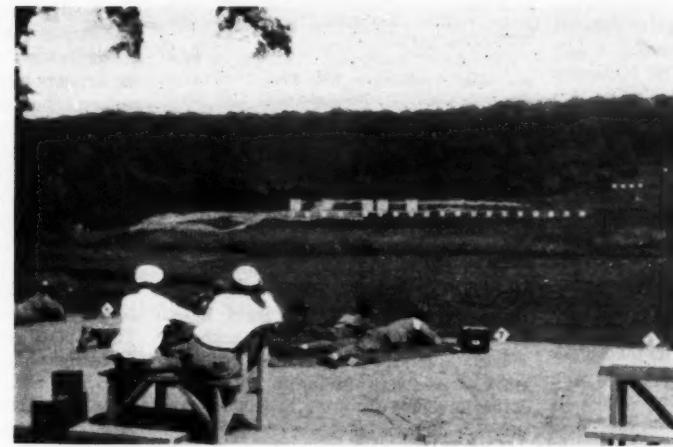
A FIRING-LINE SCENE AT CONNECTICUT SHOOT

numbers were placed in a hat and the one whose number was drawn got the prize.

The tournament, which was favored by three days of fine summer weather, was held by the Connecticut association on the state rifle range at East Haven June 23, 24 and 25. There were 203 shooters registered and participating in the 18 formally scheduled matches and one added match.

Friday, the first day, the weather was clear and hot, with a tricky breeze all day, which interfered some with the scores. Saturday was also clear with more wind and considerable mirage. Sunday dawned slightly overcast, the kind of a day when one suffers most from sunburn, but about

"ALLEYS" OF UPRIGHT LATHS KEPT THE SHOOTERS ON THEIR OWN TARGETS



10 a. m. the sun came out clear and strong and a variable breeze and extremely heavy mirage interfered seriously with the shooting, making high scores impossible, the average spotting scope being of little use at 100 yards. It was on Sunday the 4-man team matches were fired and an extra individual match over the Dewar course was also held. There was more shooting on Sunday than on the two previous days.

The clubs affiliated with the state association take occasion to ex-

press their appreciation of the aid given them in the conduct of their first tournament by Col. H. B. Bissel, Col. R. F. Gadd and Capt. A. J. Griffin, of the National Guard, who permitted the use of the range and furnished 35 tents for the competitors; to Capt. G. W. Oberlin, who erected the tents and furnished a field range for cooking purposes; to the Winchester Repeating Arms Company for the loan of tables and chairs, and to the Lyman Gun Sight Corporation, which furnished a great amount of labor in building target frames and erecting the small-bore range. Without the whole-hearted cooperation of these organizations it would have been impossible to have held the matches.

President Hughes Richardson, of the state association, spent many days and rode several thousand miles in his car making preliminary arrangements, arranging for prizes and printing of the program, which was about the finest printing job the shooters had seen for a rifle match program.

In addition to cash prizes in all matches, gold, silver and bronze medals were donated by the N. R. A. for

first, second and third places in all matches.

Being the first match, Commercial Row was small, consisting of displays by Clapp & Treat, of Hartford; Griffin & Howe, of New York, and Cook, Newton & Smith, of New Haven, in conjunction with the Winchester Repeating Arms Company.

There was a merchandise prize donated for every match, which included 2 Lyman scopes, 3 rifles from the Mossburg Company in New Haven, including one of the new model repeaters No. 40, an etching by Robert Nisbitt, of Kent, and many others. Cash prizes in all except team matches were awarded first, second, third, fifth, tenth, etc., places, depending on the number of entries. The system of awarding the merchandise prizes, therefore, made it possible for a shooter in tenth place or lower to have an even chance with the winner of first place for the merchandise. This method made a hit with the shooters as all cash winners had an even chance, the winner of the match not receiving all the prizes.

The scores:

Match No. 1, 20 shots at 50 yards, metallic sights: Robert Nisbitt, Kent, Conn., 199; C. E. Lyman, Jr., Middlefield, 199, but outranked by Nisbitt; F. O. Kuhn, Stratford, 198.

Match No. 2, 20 shots at 50 yards, any sights: L. E. White, Plantsville, 200 with 9 X's; W. P. Schweitzer, Hillside, N. J., 199; Sam Tekulsky, New York, 198.

Match No. 3, 20 shots at 100 yards, metallic sights: C. E. Lyman, 200; F. A. Kuhn, Middlefield, 194; H. F. Anthony, Wallingford, 194, outranked by Kuhn.

Match No. 4, 20 shots at 100 yards, any sights: F. O. Kuhn, Stratford, 199; W. P. Schweitzer, 197 with 10 X's; Sam Tekulsky, 197 with 6 X's.

Match No. 5, 20 shots at 200 yards, metallic sights: Eric Johnson, Meriden, 193; R. F. Gadd, Jr., Hartford, 192; J. R. Neilsen, Hartford, 191. Both Johnson and Gadd used barrels manufactured by the former who is in business in New Haven.

Match No. 6, 20 shots at 200 yards, any sights: S. T. Moore, 196; W. P. Schweitzer, 195; F. O. Kuhn, 193.

Match No. 7, iron-sight aggregate, 50, 100 and 200 yards: Eric Johnson, 581; R. F. Gadd, Jr., 581; S. Tekulsky, 576.

Match No. 8, aggregate, 50, 100 and 200 yards, any sights: W. P. Schweitzer, 591; S. T. Moore, 589; F. O. Kuhn, 589, outranked by Moore.

Match No. 9, championship 10 shots 50, 100 and 200 yards, metallic sights: Sam Tekulsky, New York, 290; E. B. Smith, Newburgh, N. Y., 290, outranked by Tekulsky; W. P. Schweitzer, 289.

Match No. 10, 10 shots 50, 100 and 200 yards, any sights: Eric Johnson, 291; S. T. Moore, 291; Henry Hasse, Hartford, 289.

Match No. 11, 2-man team, metallic sights, 10 shots at 50 and 100 yards: W. P. Schweitzer and Sam Tekulsky, 394; A. J. Lynch and J. T. Moran, Hartford, 394; Eric Johnson and F. O. Kuhn, 391.

Match No. 12, 2-man team, 10 shots 50 and 100 yards, any sights: Eric Johnson and F. O. Kuhn, 397; E. J. Doyle and W. A. Dallas, of Hamden, 396; D. Carlson and Kenneth Clark, of Bridgeport, 394.

Match No. 13, 2-man team, iron sights, 20 shots at 200 yards: W. P. Schweitzer and Sam Tekulsky, 383; Eric Johnson and F. O. Kuhn, 380; G. W. Morehouse and G. B. Sheldon, of Poughkeepsie, N. Y., 375.

Match No. 14, 2-man team, any sights, 20 shots at 200 yards: W. P. Schweitzer and Sam Tekulsky, 384; G. W. Morehouse and G. B. Sheldon, 383; C. J. Walker and S. A. Colborne, of Stratford, 383.

Match No. 15, 4-man team, iron sights, 20 shots at 200 yards: New York Edison Rifle Club, 734; Poughkeepsie Rifle Club, 726; Capitol City Rifle Club, Hartford, 713.

Match No. 16, Connecticut Dewar Team Match, 16 teams entered: Poughkeepsie Rifle Club, 1,578; Bridgeport Rifle Club, 1,575; Lufbery Rifle Club, Wallingford, 1,549.

Match No. 17, 4-man team, 20 shots at 200 yards, any sights: Poughkeepsie Rifle Club, 744; Capitol City Rifle Club, 722; Bridgeport Rifle Club, 721.

Match No. 18, Nutmeg Team Match, 50 and 100 yards, 4-man teams: Poughkeepsie Rifle Club, 1,579; Norwich Rifle Club, 1,533; Wepawaug Rifle Club, Milford, 1,502.

Match No. 19, extra Dewar course: L. E. White, Plantsville, 395 with 20 X's; Eric Johnson, 395 with 19 X's; H. F. Anthony, 391.

There were also re-entry matches at 50, 100 and 200 yards for both metallic sights and any sights with from 150 to 160 sets of 3 targets fired in each, the 3 best targets counting for record. Re-entry targets were also low in price, selling 3 for 50 cents.—EDWARD E. COOK, Secretary.

ATTENTION, LEGIONNAIRES

R. E. LOUDEN, of Butler, Pa., captain of the American Legion team which will fire in the FIDAC Match this year, has issued the following bulletin to Legionnaires who aspire for berths on the team:

"Let us start at once to prepare for this event so that everyone will be at top form when the time arrives. Daily practice on the 50-meter target should be the first order and keeping one's self in the best physical condition forms the second rule which should be carried out. Remember, we won from England by only 7 points last year, and if we wish to hold the trophy for the fourth year we must do everything possible to place a winning team on the field. Let us be prepared."

Further, Captain Louden addresses the Legion shooters:

"Again the Legion will make every effort to capture the Caswell Trophy Match at Perry. We lost it last year by only one point, so let's come prepared to tuck this match under our belts. A 6-man team with a 398 average is a cinch. Col. Frank Schneller, national director of the Legion marksmanship program, has a surprise this year for those making the Caswell team. Let's make this a real Legion year for the Colonel!"

CHALLENGE

The Kansas City Rifle and Revolver Club challenges any club or individual N. R. A. members to a 2-man small-bore rifle postal match, Dewar course, and a 2-man team pistol match, 10 shots at 50 yards, .22 caliber or .38 caliber. Address M. G. Watts, 5627 Euclid Ave., Kansas City, Mo.

NORTH GEORGIA SHOOT

ON THE morning of May 27 the First Annual North Georgia Rifle and Pistol Tournament got under way on the National Guard range at Fort McPherson. The matches were under the auspices of the Atlanta Rifle Club and sanctioned by the N. R. A. and the adjutant general of Georgia. Old Jupiter Pluvius put on a demonstration that bid fair to inundate the firing points and wash away the target supports but in spite of the weather a large number of shooters was on hand, including quite a sprinkling of visitors from five or six nearby states. During the two days of the shoot there were nearly 300 entries in the various events.

The 50-yard any-sight small-bore rifle match, the first on the program, was won by Charles Hamby, of Atlanta, followed by W. J. Summerall, Waycross, Ga. Third place went to F. J. Paffe, of St. Augustine, Fla. These three buddies tied with 199 and the first two had 15 X's each but Hamby ranked 'em a little. A 99 x 200 would have been a more appropriate score with the weather as it was.

Immediately after the 50-yard match and while the shooters were taking their places for the 100-yard event, a lad of 16 years, George H. Gould, II, of Louisville, Ky., who had just fired in the first match of the day, shooting well and showing no signs of illness, was stricken with a heart attack and succumbed before he could be gotten to the post hospital. This, of course, threw a tremendous pall of sadness over the entire gathering and caused the immediate withdrawal of the Louisville entrants, seven in number. Henry Gould, the father, was on the firing point next to his son and his mother was in Atlanta, although not present at the matches. At a meeting of the Atlanta Club immediately after the matches, it was unanimously voted to incorporate a 50-yard any-sight match in all future annual shoots and name it the George Gould Memorial Match as a small tribute to this fine little lad and excellent sportsman.

The 100-yard any-sight match showed Summerall out in front, with Hamby second and Gilbert Twyman, of Louisville, Ky., third. The 200-yard match was next and the inevitable Mr. Summerall was found sitting on top of the heap when the scorers finished their jobs. Harry Paschal, Jr., of Atlanta, was second, with H. M. Van Sleen, of Gastonia, N. C., crowding him closely and taking third place. The individual Dewar was copped by Paschal. Harry "gets that way" when iron sights heave into view. His score of 396 was wonderful in view of the conditions. Summerall tottered in at second place and Charlie Hamby crowded him to take third honors.

The grand aggregate was then figured up and, of course, Summerall looked down from the top rung of the ladder, Paschal taking second, and third honors going to Van Sleen.

In the pistol matches, the first fired was the regular qualification course. The 22d Infantry, Regular Army, latched onto the first 5 places very handily. In the 2 other pistol events, individual .22-caliber and heavy-caliber, Logan Bleckly, Jr., Atlanta Rifle Club, ran away with first places in both events.

Sunday dawned fair and fine and a large contingent of .30-caliber shooters appeared with a tremendous gallery to spur them on. A picked team from the 122d Regiment, Georgia National Guard, won the team match, with the Atlanta Rifle Club following with a score of 900 as against 915 of the regimental team. Eleven teams were entered and as a part or side match of the team event there was staged the seventh annual match between the Atlanta Rifle Club and the North Georgia College of Dahlonega, Ga. This event was for possession of the trophy presented 7 years ago by the Chamber of Commerce of Dahlonega, one of the most unique and beautiful trophies now in the game. It is a \$5 gold piece mounted in the center of a sterling silver plaque. The coin was minted in the old Dahlonega mint from gold that was mined at Dahlonega in the old days. Each team had won the trophy three times and this seventh match was of great interest to all concerned. The Atlanta Rifle Club won handily and retains possession of the trophy.

The 200-yard off-hand match was won by Amos Browning, of the rifle club. In the 600-yard event, Paschal again demonstrated that young eyes and strong muscles can do the trick. Charlie Hamby took second place. In the 500-yard Swiss match, 11 bullseyes by Private Burna, 22d Infantry, won the event easily. In a Swiss re-entry unlimited, Stephen A. Wilson, of Savannah, who went out on his first shot in the original match, staged a comeback to clean up with 14 bulls. The Mad Minute Match was won by Private Southern, 22d Infantry, who made a 94, getting off the remarkable number of 25 shots during the minute.

The Individual Championship, comprising the scores made in the various sections of the team matches, went to Lt. Paul Spangler, 122d Infantry, Georgia National Guard. Capt. R. C. Endicott, of the same outfit, was tied with Lieutenant Spangler but was outranked.

The Atlanta Rifle Club feels grateful for the large attendance from other sections in this, its first, attempt at anything other than a local tournament.—HAL L. DRAKE.

Camp Perry Beckons the Small-Borers

WHEN the last Monday of August rolls around, Camp Perry will once again be somewhat like its old self. It will not be the enormous city of canvas housing a population of 6,000 or more such as during the National Rifle and Pistol Matches, but it will be that same old buzzing scene of enthusiastic aspirations of riflemen, gun talk, elations and disappointments in the struggle for national and international honors, reunions—all that is so fondly associated with a Camp Perry shoot excepting the hugeness and diversity of the crowds and the caliber of the arms to be used.

The National Small-Bore Rifle Tournament will bring about the restoration of Camp Perry, after a lapse of one year, as the site of a strictly national shoot. The meet will open on Monday, August 28, and continue through Labor Day, September 4, a full eight-day program. All the N. R. A. small-bore championships will be decided at the shoot, none of the trophies in this class of shooting having been put up for competition in the state meets. It will undoubtedly be the biggest complete national small-bore meet ever staged in this country.

In addition to the national championship events, the American teams in the four international matches in which shooters of this country will engage will fire their scores during the meet. The Fidac Match and the International Railwaymen's Match are listed for September 3 and the Dewar Trophy Match and the new triangular competition, in which teams of the United States, Great Britain and Germany will be the contenders, will be fired on the final day of the shoot.

A permanent trophy has been provided for the new match by the Rhenish-Westfalian Explosives Company, of Nuremberg, Germany. The trophy is known as the R. W. S. Challenge Cup, taking its initialed name from the German name of the donor, the Rheinische-Westfälischen Sprengstoff Aktiengesellschaft. Condi-

R. W. S. CHALLENGE TROPHY FOR NEW INTERNATIONAL MATCH



tions of the match specify teams of 10 men, 40 shots per man at 50 meters on the international 50-meter small-bore target, 5 minutes for each series of 5 shots, any small-bore rifle using .22-caliber rimfire cartridges, metallic sights, all prone shooting.

The Camp Perry meet will be conducted by the National Rifle Association in co-operation with the Ohio State Rifle and Pistol Association. The arrangements which have been made promise the shooters a smoothly-running shoot that will meet with the complete satisfaction of all. Col. C. E. Stodter will be the executive officer and his appointment to that post gives assurance in itself of the kind of service that the shooters may expect.

As it opens on the last day of the Ohio State .30-Caliber Shoot, to be held at Perry from August 26 to 28, the national small-bore meet will have everything in readiness for the accommodation of the competitors and for the operation of the matches. While the national meet does not open until August 28, competitors can be accommodated both as to quarters and mess any time after noon on Friday, August 25. Tents, cots and bedding will be provided and the only charge for living accommodations will be the \$1 registration fee. Competitors who bring their families will be quartered in a special "Squaw Camp" area. There will be mess in camp in addition to the restaurants just outside the grounds. The club house, however, will not be open.

The schedule of single entry matches follows, not listing the usual program of re-entry matches which will be fired throughout the tournament:

August 28: National Small-Bore Championship, Camp Perry Individual, Ohio Rifle and Pistol Association 100-Yard Any-Sight Match.

August 29: Ohio Rifle and Pistol Association Short-Range Any Sight Match, Long-Range Two-Man Team Match.

August 30: Short-Range Individual, Long-Range Individual.

August 31: Small-Bore Wimbledon, Short-Range Two-Man Team.

September 1: Preliminary Dewar, American Legion Individual.

September 2: Short-Range Team Match, Long-Range Team Match.

September 3: Fidac Match, International Railwaymen's Match.

September 4: Dewar Trophy Match, R. W. S. Challenge Trophy Match.

It will be that enticing "Call of Camp Perry"—and how many of those inveterate small-borers scattered throughout the country will be able to resist it?

Copies of the program will be sent to clubs and individual N. R. A. members of Ohio and adjacent states while shooters of other sections of the country desiring copies must send in a request for them to N. R. A. Headquarters.

The Coming N. R. A. State Shoots

Alabama

THE Alabama State Rifle Association plans to hold a State Tournament of N. R. A. matches at Gadsden, Ala., on September 2, 3 and 4. The National Guard unit in that city has offered its range and barracks for the use of the competitors during the meet. Since this is the first tournament of this sort held in the state it is anticipated that it will be welcomed by shooters.

The schedule is planned as follows: September 2, Navy Match, 200-Yard Rapid Fire Match; September 3, President's Match, 200- and 600-yard stages, and Crowell Match; September 4, President's Match, 1,000-yard stage, and Wimbledon Match. The State Championship Match, which was originally planned for August 27, will be held at the same time by combining the course of fire with the above matches. Contact E. E. Foster, secretary, Alabama State Rifle Association, Box 1021, Montgomery, Ala.

California

The dates for the California State Shoot have been changed from September 5 to 9, inclusive, to August 21, September 1 to 4, inclusive. The matches will be held at San Luis Obispo and will include the Individual Civilian Club Members' Match, Wimbledon Cup Match, President's Match, Crowell Trophy Match, Coast Guard Trophy Match, Navy Cup Match, Leech Cup Match, Herrick Trophy Match, A. E. F. Roumanian Trophy Match and the American Legion Interdepartmental Match. Contact L. A. Pope, secretary, California State Rifle Association, 532 Oxford Drive, Los Angeles, Calif.

Colorado

The Colorado State Meet, which will be held over the Colorado National Guard range, near Denver, September 2, 3 and 4, tentatively lists the President's Match, Navy Cup Match and Coast Guard Trophy Match in the .30-caliber field, N. R. A. Individual Pistol Match and Individual .22-Caliber Pistol Match and 3 small-bore events. Contact William D. Wheeler, secretary-treasurer, Colorado State Rifle Association, Golden, Colo.

Illinois

The Illinois State Shoot for the N. R. A. high-powered rifle championships and trophies will be held by the Illinois State Rifle Association at Fort Sheridan, Ill., beginning September 1 and concluding September 4. Thirteen of the N. R. A. Matches have been listed to be fired. The schedule follows:

September 1: Registration and re-entries.
September 2: Navy Cup Match, Coast Guard Rapid-

Fire Trophy Match, N. R. A. Members' Match, Crowell Cup Match, Leech Cup Match.
September 3: Individual Civilian Club Members' Match, Civilian Interclub Team Match, A. E. F. Roumanian Trophy Match, Scott Cup Match, Wimbledon Cup Match.

September 4: President's Match, American Legion Interdepartmental Team Match, Marine Corps Cup Match. Contact L. L. Knight, president, Illinois State Rifle Association, 208 West Washington St., Chicago.

Indiana

The Indiana Rifle Association, in conjunction with the Indiana National Guard, will hold its annual matches at Frankfort, Ind., in September, though definite dates have not yet been fixed. The association plans to include the Coast Guard Rapid-Fire Match, the N. R. A. Members' Match, the Navy Cup Match and the Individual Civilian Club Members' Match. Contact Lt.-Col. Basil Middleton, N. R. A. state secretary for Indiana, Culver Military Academy, Culver, Ind.

Michigan

The program for the Michigan State Rifle Association matches this year includes the President's Match, Navy Cup Match, Wimbledon Cup Match, Coast Guard Trophy Match and the American Legion Interdepartmental Team Match, these being in addition to the usual state matches. Two meets will be held, both at the Grand Rapids rifle range. The first shoot will be held August 12 and 13 for competitors from the eastern and upper peninsula sections of the state and the other on August 19 and 20 for the competitors from the western part of the state. Quarters for competitors and range personnel will be provided. Competitors' mess will be operated without cost. For full particulars, address Lt.-Col. Payson D. Foster, Executive Officer, 2000 Second Avenue, Detroit, Mich.

Minnesota

Definite arrangements for the Minnesota matches have not been effected. When completed, the full details will be announced in these columns along with other state programs that are still in process of formulation. Contact C. M. Saam, secretary, Minnesota Rifle and Revolver Association, 3641 47th Ave., S., Minneapolis, Minn.

Nevada

The Nevada matches will be held September 2, 3 and 4. The matches to be fired will include the Individual Civilian Club Members', Navy, Coast Guard, Crowell, Civilian Interclub and, most likely, the President's matches. Contact M. E. Norton, N. R. A. state secretary for Nevada, Carson City, Nev.

New England

The United Services of New England will incorporate in its annual tournament, which will be held at Wakefield, Mass., August 5 to 13, inclusive, 12 of the N. R. A. championship matches. The dates fixed for these different matches are:

August 5: A. E. F. Roumanian Trophy Match.
August 6: Civilian Club Members' Match.
August 7: Navy Cup Match, Scott Match, Camp Perry Instructors' Trophy Match.
August 8: President's Match.
August 9: Coast Guard Rapid-Fire Trophy Match, Crowell Cup Match, Wimbledon Cup Match, Marine Corps Cup Match.
August 10: Individual Pistol Championship Match.
August 12: N. R. A. Members' Match.

Contact John H. Pembroke, secretary-treasurer, United Services of New England, Room 200, State House, Boston, Mass.

Ohio

Preceding the National Small-Bore Shoot, the Ohio State Rifle Association will hold a program of N. R. A. championship trophy matches for the .30-caliber shooters at Camp Perry. These matches will begin August 26 and conclude August 28. The big-bore matches listed include the President's, Navy Cup, Leech Cup, Coast Guard Rapid-Fire, Marine Corps Cup, and Wright Memorial Trophy Matches. Contact Roy B. Foureman, secretary, Ohio Rifle and Pistol Association, 1374 Hollywood Pl., Columbus, Ohio.

Oklahoma

The Oklahoma Rifle Association will hold its state matches for the N. R. A. championships this fall, but as yet no dates have been fixed. The shoot will be held either at Okmulgee or Ardmore. Contact C. Dale Wolfe, president, Wewoka, Okla.

Quantico

A shoot for N. R. A. championships is contemplated over the U. S. Marine ranges at Quantico, Va., from August 16 to 19. Prospective competitors should address their inquiries in regard to this proposed meet to N. R. A. headquarters.

NEW YORK STATE N. R. A. MATCHES

THE New York State Rifle Association is the first state organization to report on N. R. A. championship matches.

Three of the N. R. A. matches were included in the annual shoot of the association held at Camp Smith, Peekskill, N. Y., June 6 and 8. They were the President's Match and the Marine Corps Cup Match, each of which drew 14 entries, and the Navy Cup Match, in which 13 competed. All contestants were members of the 107th Infantry, N. Y. G.

The President's Match was taken by Pedro H. Agramonte with 135 x 150, followed by James J. Brennan with 134 and Frank H. Glinsman with 133.

Harold J. Gibb won the Marine Corps Cup Match, turning in a 93 x 100. Agramonte was second with 91 and Brennan came in with an 89 for third place.

In the Navy Cup Match, Charles Mason turned in a 91 x 100 to win, with Agramonte pressing him with a 90. Glinsman fired an 89 to take third honors.

NORTHWEST SHOOT

IN PAST years the Northwest Rifle Association always had ideal weather for its annual matches but this year the weather man was against us. The day before the matches opened was clear and windless and shooters began gathering from all over, happy at the prospects. The next morning, however, everything was different, cloudy and cold, with a hurricane of a wind blowing.

The shoot was held at Fort George Wright May 4 to 7, inclusive. Due to conditions of the country we had less than half of the crowd that was expected, or less than half of last year's crowd. The team from the U. S. S. *New York* arrived at the last minute and was certainly welcomed. Without their attendance the matches would have been a financial loss. H. A. Weymouth, state secretary of the N. R. A. for Utah, who has attended our matches for years, arrived the day before the matches started.

The first match, the Anthony Wayne Match, saw the shooters on the line all braced against the wind and then when the wind let up you would see them try to catch themselves from falling backwards. M. D. Ladd, of the Spokane Rifle Club, won the event. Next followed the Wimbledon, during which the wind was blowing about 4 points left and then letting up so that there were many misses. The day was so dark and cloudy as to prevent doping and as we had no flag a good part of the match was luck. L. E. Wilson, of the Wenatchee Rifle Club, copped the match.

Wilson won the All-around Championship for all events with the rifle and pistol. He is a national individual winner at the National Matches in both rifle and pistol. Capt. E. A. McGoldrick, of the Spokane Rifle Club and the Reserve Officers, won the Military Championship. He has been a member of the Reserve Officers' team at Perry a good many times. The writer, a tyro at this game, won the 600-yard Military Rifle Championship.

On Sunday, the last day of the matches, the weather became worse, raining and blowing from 7 in the morning until 5 in the evening. It was terrible to try to fire with such conditions. Most of the competitors were so cold that they could not stand still, much less shoot.

The association plans to cut most of the team matches to 4-man teams next year in the hope of getting a larger attendance.

The 3 high in the important matches were:

Anthony Wayne Free Rifle Match: M. D. Ladd, Spokane R. C., 96; W. Beale, Walla Walla R. C., 94; H. McGee, U. S. S. *New York*, 92.

Northwest Wimbledon: L. E. Wilson, Wenatchee R. C., 98; H. Renshaw, Orofino, Idaho, 97; E. E. Young, Spokane R. C., 94.

Standing Military Championship: T. M. Russell, Missoula R. C., 49; L. E. Wilson, Wenatchee R. C., 48; V. Ward, U. S. S. *New York*, 48.

Rapid-Fire Championship: H. T. Stuckey, U. S. S. *New York*, 98; R. R. West, U. S. S. *New York*, 97; W. Burnham, Wauconda, Wash., 96.

1,000-Yard Military Championship: Al Pabst, Wallace R. C., 49; W. Beale, Walla Walla, 48; E. R. Stolebarger, Missoula, 48.

600-Yard Military Championship: Neil Baldwin, Spokane, 49; W. Burnham, Wauconda, 49; Sgt. Battle, Fort Missoula, 49.

Idaho Team Match: Spokane R. C., 546; Fort Missoula, 536; Walla Walla R. C., 534.

Northwest Olympic Pistol Match: Art Seabury, Seattle R. C., 163; Sgt. Jones, Port Missoula, 161; L. E. Wilson, Wenatchee R. C., 161.

Zachary Taylor Long-Range Team Match: Fort Missoula R. C., 258; Spokane R. C., 250; Wallace R. C., 249.

Infantry Team Match: Spokane R. C., 567; Fort Missoula R. C., 554; U. S. S. *New York*, 552.

Montana Team Match: U. S. S. *New York*, 545; Spokane R. C., 541; Walla Walla R. C., 537.

Davenport Cup Match: U. S. S. *New York*, 867; Spokane R. C., 853; Walla Walla R. C., 841.

Powder River Pistol Match: Sgt. John Carlson, Fort Missoula, 271; L. E. Wilson, Wenatchee, 268; B. Mathewson, Seattle, 261.

"Black Joe" Small-Bore Palms: W. Beale, Walla Walla, 224; W. Burnham, Wauconda, 223; B. Pabst, Wallace R. C., 222.

Small-Bore Wimbledon: R. F. McLennan, Lewiston, Idaho, 96; M. D. Ladd, Spokane R. C., 96; L. E. Wilson, Wenatchee, 95.

Rosebud Small-Bore Team Match: Wallace R. C., 1173; Walla Walla R. C., 1155; Spokane R. C., 1152.

Northwest Team Champion: Spokane R. C., 3909.

Infantry Team Champion: Walla Walla R. C. Offhand Fadaway: V. Ward, U. S. S. *New York*.

All-Around Championship: L. E. Wilson, Wenatchee, 1,450½%; W. Burnham, Wauconda, 1,459%; Sgt. John Carlson, Fort Missoula, 1,456½%.

Northwest Rifle Championship: Capt. E. McGoldrick, Spokane R. C., 890; W. Burnham, Wauconda, 889; J. Carlson, Fort Missoula, 887.

Northwest Pistol Championship: L. E. Wilson, Wenatchee, 429; J. Carlson, Fort Missoula, 420; J. E. O'Brien, U. S. S. *New York*, 366.

National Rifle Match Course: Ed McGoldrick, Spokane R. C., 235; J. Carlson, Fort Missoula, 230; J. E. Harper, U. S. S. *New York*, 230.

Palace Cup Match: Individual rifle championship: L. E. Wilson, Wenatchee, 418; W. Burnham, Wauconda, 418; John Carlson, Fort Missoula, 416.

National Pistol Match: J. E. O'Brien, U. S. S. *New York*.

Western Montana Trophy: Fort Missoula.

Individual Western Montana Trophy: Sgt. John Carlson, Fort Missoula.—NEIL BALDWIN.

FOR THE MUZZLE-LOADER FANS

ON AUGUST 10 and 24, the rifle club of the N. and W. Railway Y. M. C. A., Portsmouth, Ohio, will shoot 10 men in a 50-yard muzzle-loading match, high 5 scores to count, all prone shooting on the N. R. A. 50-yard 2-bull target, muzzle rest permitted, 3 shots on left bull and 2 on the right, open sights only.

"Who will take us on?" E. M. Farris, secretary of the "Y" and ardent promoter of and active participant in rifle shooting challenges. "This is a sportsmen's shoot—you shoot on your home range and send in your targets to us. We will furnish marked targets and handle scoring for 25 cents per team."

At present, Mr. Farris, tireless always in his efforts in the interest of the shooting game, is devoting much energy toward bringing about a revival of patch-and-ball shooting and has started a bulletin system to keep up the enthusiasm of those whom he knows already to have some interest in the old long rifles.

STATE RECORDS FALL IN TEXAS SMALL-BORE SHOOT

THE Texas Small-Bore Matches were held at Fort Worth May 20 and 21 on the Shady Grove range at Lake Worth. Of course, the attendance was less than last year, but the enthusiasm of the shooters present made up for the difference. Forty-one participated.

The Fort Worth Club has enlarged the range so that 22 competitors can fire either the 50 or 100 yards at the same time. The entire firing line is covered with a brush arbor so that the shooter does not have to worry about the blistering Texas sun. With Camp Perry style individual frames and white cloth behind the targets at 100 yards, there was no difficulty in spotting the shots, even with the cheapest scopes. The 200-yard range, with 8 firing points, used the same system as the 100. Beaver board frames the size of the targets gets with 8" holes cut out for the black, and white cloth stretched 3 feet back of this, did the trick so nicely that the shot holes could be seen as easily as at the shorter ranges. Even the most skeptical agreed that this system beat pit service hands down.

The fireworks opened with the Two-Man Team Match, 10 shots each at both 50 and 100, any sights. This match was won by Gene Farren and Thurman Randle with a score of 399. Randle was the offender who dropped the point. Following this match came the 100-yard Individual, iron sights. Farren kept up his possible shooting by turning in a 200 with 13 X's with Scott Wright close after him with a clean score and 10 X's, and Jack Stringfellow in third place with 199. In the Four-Man Team Match over the Dewar course, the Trinity Rifle Club, of Dallas, led the field with 1,582, which was 9 points ahead of the Fort Worth team and 10 ahead of the Oklahoma Outlaws. The 50-Yard Match, any sights and no sighters, caused a lot of merriment as well as grief, because everybody went on the line with just 30 cartridges in his block for record and no more. Only one man managed to get the dope correct for the entire distance for a clean 300. He was V. A. Moore, of Dallas. Harry Wilson, of Ardmore, Okla., came next with a 299, with Farren third, same score. The Dewar Course Match brought the day's shooting to a close with Farren the winner with a 399, followed by R. C. Pope and Randle with 397 each. Nobody could dispute the fact this was Farren's day—2 points down out of possible 1,100.

The second day's activities opened with the 50, 100 and 200-Yard Match, any sights. Moore scored a possible at the 200 and won with a 298; Greathouse got second with the same score, and Pope took

third with a 297. A large gallery was on hand to see the last match fired, the Small-Bore Wimbledon, 20 shots at 200, any sights. Randle won with 199, followed by Pope and Moore with 197 each.

The aggregate of all matches, except the 50-Yard Match, comprised the State Small-Bore Championship. This was won by Randle with a score of 1,092 x 1,100, breaking the state record for this match by 8 points. Farren was second with 1,089, with Pope third with 1,086. Great-house, of Fort Worth, last year's winner, finished fourth with 1,083. Farren's 399 in the Dewar bettered the state record in this match by 2 points, while Randle's 199 in the Wimbledon broke the old record by 3 points. With the toughest of the tough of the Southwest in attendance and aided by good shooting conditions, there was no easy picking in any match, as the scores plainly indicate.

MAINE STATE MATCHES

FEATURED by a 10-man team match between Maine and Connecticut, the annual matches of the Maine State Rifle and Pistol Association were held May 28 and 29. The meet was scheduled to run through the 30th but a heavy deluge of rain necessitated the calling off of the matches set for that day, including the interclub team event. Six matches, aside from re-entries, were fired.

In the interstate team match, Maine was the winner over Connecticut, 3,860 to 3,808. Robert Gadd, of the Connecticut aggregation, was high individual with 395. The match was fired over the Dewar course.

The leaders in the various events were:

100-Yard Individual (20 entries): Robert Gadd, Connecticut, 200 x 200 with 10 X's; Eric Johnson, Connecticut, 196; Fred Cash, Maine, 194.

50-Yard Individual (24 entries): Eric Johnson, 199 x 200; Byron Ames, Maine, 198; John Greenleaf, Maine, 197.

Individual Dewar: Eric Johnson, 392 x 400; E. E. Haskell, Maine, 383; G. Goodrich, Maine, 382.

Maine Individual Police: Lawrence E. Towle, first; A. N. Patterson, second; George Moores, third. Maine Police Team: Auburn police, first.

ARCRU ANNUAL MATCHES

DESPITE a rain that drenched the range the two days, the annual matches of the Affiliated Rifle Clubs of Rhode Island, held on the Rumford state range on June 17 and 18, drew 41 entries in the individual match and 8 five-man teams in the team event. Riflemen from Connecticut and Attleboro, Mass., did much to make the matches a success.

V. Daley, of the Middlefield Rifle Club, won the individual match, fired over the Dewar course, with 392. E. F. Sherman, Jr., of Deerfield Academy, was second with 391 and Knut Ek, Snipers Rifle Club, was third with 389. The Snipers Rifle Club,

Providence, took the team match with 1,921 x 2,000; the Attleboro Civilian Rifle and Revolver Club, No. 1 team, Attleboro, was second with 1,883, and the Woonsocket (R. I.) Rifle Club took third place with 1,873. In the re-entry match, the high 3 were Albert Hartley, Snipers, 190; L. W. Ballou, Attleboro, 189, and A. B. Colwell, Snipers, 186.

September 4; Leech Cup Match and Sadler Match, September 5. Contact Brig.-Gen. Winfield S. Price, president, New Jersey Rifle Association, office of Adjutant General, Trenton, N. J.

The Ohio Rifle and Pistol Association will hold its annual pistol and revolver championship matches on August 19 and 20 on the range of the Dayton (Ohio) Rifle and Revolver Club on the Dayton-New Carlisle Rd., 8 miles northeast of Dayton, 7 miles southwest of the intersection of Routes 40 and 69. A well-balanced program of 8 matches has been arranged. Full details may be obtained from R. C. Bracken, 1219 Bryden Rd., Columbus, Ohio.

The Central Pennsylvania Rifle Club will hold its Annual Small-Bore Tournament August 18, 19 and 20 on its Indian Echo range, Hummelstown, Pa., near Harrisburg. Programs may be obtained from Capt. A. J. Williners, 505 Division St., Harrisburg, Pa.

The Second Annual Florida Pistol League matches will be held in Miami August 7 and 8. Team matches are listed. Address Miami Police Department, Miami, Fla.

The California State Rifle Association has changed the dates for its State Shoot from September 5 to 9, inclusive, to August 21, September 1 to 4, inclusive.

The Wisconsin Rifle Association announces the following matches: August 5 and 6, W. R. A. State High-Power Championships at Milwaukee; August 20, American Legion State Matches at Janesville; September 2, 3 and 4 N. R. A. Regional Matches at Camp Douglas, now in process of organization; September 17, Southern Wisconsin Rifle League International 300-Meter Matches at Madison. For further particulars address Fred Ruffalo, secretary, Wisconsin Rifle Association, 923 Forest St., Racine, Wis.

The Yellowstone Rifle Club, Billings, Mont., will hold its Third Annual Midland Empire Small-Bore Rifle Tournament on September 3 and 4. Eight individual and 2 team matches are contemplated. For full details, address A. C. Hoefer, secretary, Yellowstone Rifle Club, Billings, Mont.

The First Annual Small-Bore Tournament of the Owen (Wis.) Rifle and Pistol Club will be held at Owen on September 10 with 50- and 100-yard prone matches and a Dewar course match (an aggregate), metallic sights, listed. For program, send post card to L. E. Bulgrin, secretary, Owen Rifle and Pistol Club, Owen, Wis.

The Small-Bore Outdoor Championships of Western Massachusetts will be held September 10 at the G. E. Athletic field, Dalton Rd., Pittsfield, Mass. For particulars, address A. R. Peck, secretary, G. E. A. A. Rifle Club, Pittsfield, Mass.

The Frontier Gun Club, Royalton, N. Y., will hold its Second Annual Small-Bore Meet on September 10. For further information, address Dean Barrows, 120 East Main St., Lancaster, N. Y.

The Ohio American Legion convention marksmanship competitions will be held August 15, the third day of the four-day convention, at Lima, Ohio, the program to include small-bore rifle, pistol and shotgun events on the East High St. road range and a service rifle match on the National Guard range. Among the small-bore events will be the Seventh Annual Allen County Championship. Scores in the service rifle match will be considered in the selection of a 6-man Ohio departmental team for national competition and the scores in a 30-meter small-bore match will be considered in the selection of the Fidac team. The committee chairmen are C. R. Ripley, Box 645, Dennison, Ohio, service rifle; R. S. Marshall, Spring and Elizabeth Sts., Lima, pistol; and R. G. Patterson, 610 West Wayne St., Lima, small bore.

COMING EVENTS

The Fortieth Annual Sea Girt Shooting Tournament will include three N. R. A. Championship Matches, the President's, Leech Cup and Wimbledon Cup. The shoot will be held September 2, 4 and 5 under the auspices of the New Jersey State Rifle Association with the following card arranged: Governor's Match, Company Team Match, Regimental Team Match and Wimbledon Cup Match, September 2; President's Match and Dryden Trophy Match,

The Second Annual North Atlantic States Pistol Team and Individual Championship Matches will be held at the Hartford Gun Club range at Knott's Corners, Farmington, Conn., on October 8. For further information, contact John P. Leonard, president, Hartford Revolver and Rifle Club, Hartford, Conn.

The Elizabethtown (Pa.) Rifle Club will hold small-bore meets on September 3, October 1, and November 5 at the Gainsburg range on Route 230, between Elizabethtown and Middletown. For complete details, address O. H. Schwanger, R. D. No. 1, Middletown, Pa.

The Saginaw (Mich.) Rifle Club will hold its Second Annual Pistol Tournament at the club range on Sunday, September 10, beginning at 10 a.m. There will be 4 events besides a number of novelty matches, such as shooting at tom-cat targets, elephant targets, plinker targets, etc. For full particulars, address John D. Leppert, 729 S. Fourth Ave., Saginaw, Mich.

The Walnut Creek Rifle Club, Erie, Pa., will hold its Second Annual Rifle Tournament over its range 10 miles west of Erie on August 13. The matches will be open to all riflemen. With 20 targets at 50 yards and 20 at 100, there will be no delay in the shooting. For full details, address Roy A. Loder, 1014 Cherry St., Erie, Pa.

The Philadelphia Rifle Association has listed the following matches: August 19, club championship revolver match; September 9, small-bore Dewar match; September 30, club rifle championship; October 21, all-around championship match. Rating medals may be shot for on the outdoor range any Saturday or holiday until October 28 and on the indoor range on any Tuesday or Friday night.

The Tampa (Fla.) Rifle and Pistol Club will hold its August pistol match on Sunday, August 20. The course will be: teams of 6 members, 4 high counting; 60 shots per man, 20 slow at 50 yards, 20 timed at 25 yards, and 20 rapid at 25 yards.

The Illinois State Rifle Association lists matches for this month as follows: August 6, Legion .30-Caliber State Championship Matches, Five-Man Team Dewar Small-Bore; August 13, Qualification "A" course, small-bore practice at 50 and 100 yards; August 20, Bliss .30-Caliber Team Match, small-bore practice at 50 and 100 yards; August 27, Legion .30-caliber matches, small-bore practice at 50 and 100 yards. The matches will be held at Fort Sheridan.

The Fort Pitt Rifle Club, Pittsburgh, Pa., lists the following matches for this month: August 5, 200-yard offhand match for the Daniel A. Atkinson, Jr., trophy; August 12, 300-meter match for the Capt. H. G. Olson trophy and running-deer match for the Ray McLaughlin trophy; August 19, 200-yard small-bore Wimbledon match for the Dr. D. A. Atkinson, M. R. Coleman, R. G. Todd trophy; August 26, 100-yard high-power rifle match for the E. J. Flesher trophy.

The Champaign-Urbana (Ill.) Rifle Club has scheduled matches for August 20 (Inter-State Small-Bore Shoot), September 10, September 24 (Central States Qualification Match), and October 1. Four trophies will be awarded at each match. For complete details, write J. F. Lorch, secretary-treasurer, 117 West Water St., Urbana, Ill.

WARNING

On the night of July 14, a Model 94 Winchester .25-35 carbine, in new condition, was stolen from the automobile of J. B. Douglas, Jr., Tecumseh, Nebr. The number of the stolen rifle is 998302.

A MUZZLE-LOADER SHOOT

THE First Annual Old Pioneers' Muzzle-Loader Shoot was held at Byesville, Ohio, on May 30, with a gusty wind, which was constantly changing in force, making a brave attempt to put a crimp in the match but just before firing commenced the shooters hit upon the idea of switching around the firing point to place the wind to their backs which helped considerably.

H. P. Bell, Cambridge, Ohio, using a speed-action muzzle-loader of his own make, won the match with a score of 40, getting 22 from bench rest and 18 offhand. W. Grote, Canton, Ohio, shot 22 from bench rest and 15 offhand for a 37 total to take second place. The make of his rifle was not obtained. A. E. Guilleume, Fort Wayne, Ind., won third honors with a Rheinhardt rifle made at Loudonville, Ohio. He had the match cinched from the bench rest position with a 28 but his heavy gun was too great a handicap offhand in the wind, getting only a 5 in that position. The course was 3 shots bench rest and 2 offhand at 50 yards on the standard 50-yard target.

A number of hams were shot off, mostly with .22 rifles. About 150 visited the range during the day and interest in muzzle-loaders vastly mounted. Fourteen took part in the match.

RED ELLIOTT DESERTS

MAY 11 marked a festive occasion with the Burbank Rifle Club, the same being a dinner to celebrate the departure of the famous F. K. Elliott, better known as "Red," for his new shop in Ramona, San Diego County. At least, this is the story of the club, which hardly agrees with the plans already being made to pool the interests of the club members and take turns hauling loads of guns down to "Red" to fix in his new site 130 miles to the southward.

Elliott, with a new shop in the quiet backwater town, with his beloved millers and rifling machines and this and that for doing fine things in steel, will turn out chamber reamers for gunsmiths, checking tools, and other things for making things, if you follow us. And among the desirable items connected with the change are a few less kibitzers to breathe heavily down his neck and converse just when he is trying to concentrate on something delicate. At least so "Red" hopes, but the roads are good, gas is cheap, and time is worth little these days—at least to some people.

Anyhow, the gang, to the number of 40 or more, foregathered at the dinner sponsored by President I. Y. Johnson, W. D. Murphy and Secretary Phelps, where, after diverse tasty dishes, parties deliv-

ered themselves of orations concerning the virtues and shortcomings of Mr. Elliott. To close the evening, sundry remembrances were presented to "Red," among them a loving cup, suitably decorated with mottos.

The club hated to see "Red" go and will miss his sunny grin and his portly presence. Elliott is a chap of high education, a lieutenant of heavy artillery in France during the war, a lover of fine work in steel, and a man with as great a grasp of gun design and the virtues and weaknesses thereof as any man in the country outside of some of the great factories.—THE SECRETARY.

Official Results—N. R. A. Outdoor Matches

Bulletin No. 1

50-YARD TYRO MATCH

(78 Entries)

Conditions: Any tyro, individual member or club member. Forty shots for record. Ten shots on each of 4 targets. To the winner a sterling silver medal; second to tenth, bronze medals. Percentage medals. Metallic sights.

1. H. C. Marsden, Corona, Calif.	398-29X
2. R. B. Goodwin, Atlanta, Ga.	398-15X
3. Velmar Umlandt, Muscatine, Iowa	396
4. Bror L. Anderson, Joliet, Ill.	395
5. Judson A. Smith, Brookline, Mass.	395
6. John A. Bock, Joliet, Ill.	394
7. Conrad J. Lindberg, Joliet, Ill.	394
8. James C. Burton, Los Angeles, Calif.	393
9. Roland B. Cooper, Vincennes, Ind.	393
10. John P. Sellman, Jr., Washington, Ind.	392

Bulletin No. 2

TYRO 100-YARD MATCH

(55 Entries)

Conditions: Any Tyro, individual member or club member. Forty shots for record. Ten shots on each of 4 targets. To the winner a sterling silver medal; second to tenth, bronze medals. Percentage medals; metallic sights.

1. Arlin C. Jenneyjahn, Appleton, Wis.	391-14X
2. B. E. Johnson, Jacksonville, Fla.	391
3. E. Q. Walker, So. Jacksonville, Fla.	391
4. H. C. Marsden, Corona, Calif.	390
5. Shelton R. Kressler, Bloomsburg, Pa.	390
6. Dan L. Hoffman, Pittsburgh, Pa.	390
7. Bror L. Anderson, Joliet, Ill.	389
8. Prosper A. Elsner, Vincennes, Ind.	389
9. R. B. Godwin, Atlanta, Ga.	388
10. Carl M. Mellon, Springdale, Pa.	388

Bulletin No. 3

50-YARD OFFHAND MATCH

(32 Entries)

Conditions: Forty shots for record, 10 shots on each of 4 targets standing. (Free rifle standing position.) To the winner, a silver medal; second to tenth, bronze medals. Any sights.

1. Lyle Miller, Twin Bluffs, Wis.	377
2. F. G. Peterson, E. Warren, Pa.	373
3. Stuart C. Edmonds, Penn Yan, N. Y.	369
4. Karl L. Lee, Ames, Iowa	366
5. L. R. Shiflet, Jr., Birmingham, Ala.	364
6. M. F. Mathis, Warren, Penna.	364
7. P. H. Makelski, Mishawaka, Ind.	363
8. A. J. Mondschein, Brentwood, Pa.	363
9. R. M. Edmonds, Elmira, N. Y.	363
10. John M. Tokar, Detroit, Mich.	360

Bulletin No. 4

50-YARD SMALL-BORE SPRING CHAMP.

(148 Entries)

Conditions: Forty shots for record, 10 shots on each of 4 targets. To the winner a gold medal. To the high competitor using iron sights, provided he is not the winner, a sterling silver medal. Nine bronze medals to the remaining highest nine competitors. Percentage medals. Any sights.

1. Leo Kaufman, Kintyre, N. Dak.	400-33X
2. John N. McClintock, Walnut, Calif.	400-37X
3. Marshall F. Mathis, Warren, Pa.	400-34X
4. Paul J. St. Jean, Paris, France	400-33X
5. Royal N. Jones, Madera, Calif.	400-33X
6. Mark R. M. Gwillian, Bloomfield, N. J.	400-28X

7. M. E. Altimus, Sr., Nanty Glo, Pa. 400-27X
 8. H. S. Ward, Scarsdale, N. Y. 400-26X
 9. D. B. Jenks, St. Paul, Minn. 400-23X
 10. Harley Smith, Madison, Ohio. 399

Bulletin No. 5

100-YARD SMALL-BORE SPRING CHAMP.

(132 Entries)

Conditions: Forty shots for record, 10 shots on each of 4 targets. To the winner a gold medal. To the high competitor using iron sights, provided he is not the winner, a silver medal. Nine bronze medals to the remaining highest nine competitors. Percentage medals. Any sights.

1. Leo Kaufman, Kintyre, N. Dak. 400-33X
 2. M. E. Altimus, Sr., Nanty Glo, Pa. 400-32X
 3. C. C. Johnson, Thackery, Ohio. 400-32X
 4. G. E. Lindsay, Washington, D. C. 400-30X
 5. H. M. Paschal, Jr., Atlanta, Georgia. 400-28X
 6. P. J. St. Jean, Paris, France. 400-26X
 7. J. N. McClintock, Walnut, Calif. 399
 8. Harry Sleep, Darlington, Wis. 399
 9. Chief H. E. Keoth, Oklahoma City, Okla. 399
 10. M. F. Mathis, Warren, Pa. 398

Bulletin No. 6

N. R. A. INDIVIDUAL SMALL-BORE SPRING CHAMPIONSHIP (Aggregate)

(62 Entries)

Conditions: The aggregate of the scores made in the Individual 50 Yard Championship Match and in the Individual 100 Yard Championship will constitute the total score for this event. To the winner, a gold medal. A sterling silver medal to the runner-up. Eight bronze medals to the remaining highest eight competitors.

1. Leo Kaufman, Kintyre, N. Dak. 800 33 X
 2. M. E. Altimus, Sr., Nanty Glo, Pa. 800 32 X
 3. J. N. McClintock, Walnut, Calif. 799
 4. Marshall F. Mathis, Warren, Pa. 498
 5. Royal N. Jones, Madera, Calif. 798
 6. Mark R. M. Gwilliam, Bloomfield, N. J. 797
 7. Stuart C. Edmonds, Penn Yan, N. Y. 796
 8. G. E. Lindsay, Washington, D. C. 795
 9. Harry Sleep, Darlington, Wis. 795
 10. L. E. Bulgrin, Owen, Wis. 795

Bulletin No. 7

WOMEN'S INDIVIDUAL CHAMPIONSHIP

(10 Entries)

Conditions: Twenty shots for record at 50 yards; twenty shots for record at 100 yards. To the winner a silver medal, second to fifth bronze medals. Metallic sights.

1. Edna M. Secord, Seattle, Wash. 395
 2. Edna Pauch, Somerville, N. J. 395
 3. Myrtle Shumway, Superior, Wis. 393
 4. Grace Rohmann, Roslyn Hghts., N. Y. 391
 5. Hubertine Rapp, St. Paul, Minn. 391
 6. Sally Weisbrodt, Ithaca, N. Y. 384
 7. Tess Nordhus, Highland Park, Ill. 382
 8. Veimer Umland, Muscatine, Iowa. 382
 9. C. C. Crabb, Arcadia, Okla. 381

Bulletin No. 8

SMALL-BORE FREE RIFLE SPRING CHAMPIONSHIP

(22 Entries)

Conditions: Twenty shots, standing (free rifle, standing position); twenty shots, kneeling; twenty shots, prone. No time limit. Each stage to be fired in strings of 10 shots. To the winner of the match, the aggregate of the three stages, a gold medal; a sterling silver medal to the runner-up; to the eight next high competitors, bronze medals. Percentage medals. Any metallic sights.

1. Paul St. Jean, Paris, France 535
 2. Stuart C. Edmonds, Penn Yan, N. Y. 511
 3. Willis E. Kenyon, Ames, Iowa. 505
 4. Wm. T. Bryan, Roslyn, Pa. 501
 5. Raymond Brown, Westbury, N. Y. 501
 6. Virgil Henson, Murdock, Ill. 498
 7. Wm. P. Thelen, Detroit, Mich. 497
 8. Richard Knott, Detroit, Mich. 497
 9. C. T. Westergaard, Whiting, Iowa. 493
 10. John M. Tokar, Detroit, Mich. 489

Bulletin No. 9

INDIVIDUAL JUNIOR CHAMPIONSHIP

(416 Entries)

Conditions: Four strings of ten shots each, prone. A string must be completed the same day started. No sighting shots will be taken. Any .22 caliber rim fire. Fifty feet from firing-point to target. To the winner, a gold medal; second, a sterling silver medal; third to tenth, bronze medals. Metallic.

1. Myles Altimus, Jr., Nanty Glo, Pa. 400
 2. Marshall Over, Ingomar, Mont. 399
 3. Victor Bailey, Porterville, Calif. 399
 4. Robert Hughes, Youngstown, Ohio. 399
 5. Eugene Jones, San Bernardino, Calif. 399
 6. Guy Swannack, Fosterville, Calif. 399
 7. George W. Swenson, Flushing, N. Y. 398

8. Samuel Stine, Waynesboro, Pa. 398
 9. Roger Hughes, Youngstown, Ohio. 398
 10. Barton O. Baker, Moline, Ill. 398

Bulletin No. 10

200-YARD PRONE MATCH

(48 Entries)

Conditions: Twenty shots for record, slow-fire, prone. To the winner, a gold medal; second, a sterling silver medal; to the high competitor using iron sights, provided he is not the winner or runner-up, a silver medal; bronze medals to the remaining eight highest competitors. Any sights.

1. Charles G. Hamby, Atlanta, Ga. 196
 2. Freeman G. Peterson, E. Warren, Pa. 196
 3. John C. Crenshaw, Greenville, Ala. 193
 4. L. A. Pope, Los Angeles, Calif. 192
 5. Oscar Anderson, Owen, Wis. 192
 6. Marvin B. Letcher, Reading, Pa. 190
 7. Harry E. Stone, Phoenixville, Pa. 190
 8. William T. Bryan, Roslyn, Pa. 190
 9. H. E. Keoth, Oklahoma City, Okla. 189
 10. T. B. Kellum, Austin, Tex. 189

Bulletin No. 11

200-YARD OFFHAND MATCH

(19 Entries)

Conditions: Twenty shots, slow-fire, standing. (Sling in "parade position." Hip-rest not permitted.) To the winner, a gold medal; second, a sterling silver medal; to the high competitor using iron sights, provided he is not the winner or runner-up, a silver medal; bronze medals to the remaining eight highest competitors. Any sights.

1. H. E. Keoth, Oklahoma City, Okla. 97
 2. J. W. Aitken, Overly, N. Dak. 96
 3. Emanuel Schwab, Sacramento, Calif. 96
 4. Walter Shanessy, Brooklyn, N. Y. 95
 5. Anthony DeCecco, Pittsburgh, Pa. 95
 6. J. H. Perozzi, San Luis Obispo, Calif. 93
 7. Franklin D. West, Des Moines, Iowa. 93
 8. A. J. Stenner, Luck, Wyo. 92
 9. Henry J. Black, Des Moines, Iowa. 92
 10. Emory Howcock, Monmouth, Ill. 92

Bulletin No. 12

KRAG-RUSSIAN

(10 Entries)

Conditions: Ten shots standing, 200 yards; ten shots rapid-fire sitting or kneeling from standing, 200 yards; ten shots prone, 200 yards. To the winner, a gold medal; second, a sterling silver medal; third to tenth, bronze medals. Metallic sights.

1. John O. Oien, Minneapolis, Minn. 140
 2. Kenneth W. Wright, Chanute, Kans. 140
 3. H. G. Schmidberger, Cody, Wyo. 137
 4. G. G. Cooper, Des Moines, Iowa. 137
 5. M. S. Charlton, Royal Oak, Mich. 136
 6. Morrison Worthington, Chicago, Ill. 134

Bulletin No. 13

TYRO SLOW-FIRE MATCH

(50 Entries)

Conditions: Any center fire pistol or revolver. Forty shots for record, 25 yards, 50-yard Standard American Target. To the winner, a sterling silver medal; second to tenth, bronze medals. Percentage medals.

1. Elliott Jones, Greenwich, Conn. 393
 2. John J. Dwyer, Utica, N. Y. 391
 3. W. Hancock, Tucson, Ariz. 387
 4. Fred J. Douglas, Utica, N. Y. 381
 5. Dan W. Nelson, Duluth, Minn. 379
 6. H. F. Schlarb, Des Moines, Iowa. 378
 7. Joe Medinger, Las Cruces, N. Mex. 377
 8. C. A. Miller, Franklin, Pa. 372
 9. Jack Sutherland, Alameda, Calif. 372
 10. Louis C. Strahl, Cleveland, Ohio. 369

Bulletin No. 14

TYRO TIMED-FIRE MATCH

(21 Entries)

Conditions: Forty shots for record, fired in strings of 5 shots. Any center fire pistol or revolver. Twenty-five yards. Fifty-yard Standard American target. To the winner, a sterling silver medal; second to tenth, bronze medals. Percentage medals.

1. Floyd E. Drake, Alameda, Calif. 378
 2. George F. Riso, Alameda, Calif. 366
 3. John J. Dwyer, Utica, N. Y. 366
 4. Lloyd R. Wendland, Alameda, Calif. 364
 5. Fred J. Douglas, Utica, N. Y. 360
 6. Theodore G. Gross, Santa Monica, Calif. 356
 7. James P. McNabb, San Gabriel, Calif. 352
 8. W. E. Burke, Pittsburgh, Pa. 350
 9. B. G. Dwyer, Syracuse, N. Y. 348
 10. Louis C. Strahl, Cleveland, Ohio. 348

Bulletin No. 15

.22 TYRO SLOW-FIRE PISTOL MATCH

(68 Entries)

Conditions: Any .22-caliber pistol or revolver. Forty shots for record, 25 yards, 50-yard Standard

American Target. To the winner, a sterling silver medal; second to tenth, bronze medals. Percentage medals.

1. Harold Mattison, Binghamton, N. Y. 388
 2. N. R. Adair, Yuma, Ariz. 387
 3. Edmund Jussen, Pasadena, Calif. 386
 4. Robert Nau, Ames, Iowa. 384
 5. H. S. Ward, Scarsdale, N. Y. 382
 6. Leon R. Stearns, Palmyra, N. Y. 382
 7. Joseph F. Shaw, Grand Rapids, Mich. 380
 8. R. J. Miller, San Francisco, Calif. 379
 9. L. R. Shiflett, Jr., Birmingham, Ala. 378
 10. Clarence A. Miller, Franklin, Pa. 378

Bulletin No. 16

.22 TYRO TIMED-FIRE MATCH

(20 Entries)

Conditions: Any Pistol Tyro Member of the N. R. A. or of an affiliated club. Forty shots for record, fired in strings of 5 shots. Any .22 cal. pistol or revolver, 25 yards. To the winner, a sterling silver medal; second to tenth, bronze medals. Percentage medals.

1. Harold Mattison, Binghamton, N. Y. 376
 2. L. R. Shiflett, Jr., Birmingham, Ala. 368
 3. M. H. Taylor, Ontario, Calif. 366
 4. John J. Dwyer, Utica, N. Y. 364
 5. Robt. Nau, Ames, Iowa. 363
 6. Loren Snowton, Williamson, N. Y. 361
 7. H. S. Ward, Scarsdale, N. Y. 361
 8. W. E. Burke, Pittsburgh, Pa. 356
 9. A. E. Maddock, Titusville, N. J. 355
 10. Melvin Rhodes, Biggs, Calif. 354

Bulletin No. 17

SLOW-FIRE MATCH

(30 Entries)

Conditions: Forty shots for record. Any center fire pistol or revolver, 50 yards. To the winner, a sterling silver medal; second to tenth, bronze medals.

1. Rodney S. Pease, San Diego, Calif. 362
 2. Stanley Kramer, Baltimore, Md. 358
 3. Elliott Jones, Greenwich, Conn. 353
 4. Nick Lehmen, Medford, Wis. 355
 5. Elvin L. Kellogg, Battle Creek, Mich. 354
 6. I. E. Nitschke, Austin, Tex. 353
 7. Karl Krautheim, Honolulu, Hawaii. 352
 8. Lt. James Hughes, Bridgewater, Mass. 349
 9. C. L. Herb, Sacramento, Calif. 346
 10. S. A. Slavens, Los Angeles, Calif. 345

Bulletin No. 18

TIMED-FIRE MATCH

(27 Entries)

Conditions: Forty shots for record, fired in strings of 5 shots. Any center fire pistol or revolver, 25 yards. To the winner, a sterling silver medal; second to tenth, bronze medals.

1. Nick Lehmen, Medford, Wis. 389
 2. Rodney S. Pease, San Diego, Calif. 388
 3. John Cataldo, Lyons Falls, N. Y. 387
 4. Stanley Kramer, Baltimore, Md. 387
 5. Lt. J. E. Hughes, W. Bridgewater, Mass. 386
 6. C. L. Herb, Sacramento, Calif. 384
 7. I. E. Nitschke, Austin, Tex. 380
 8. S. A. Slavens, Los Angeles, Calif. 380
 9. W. L. Bain, Jr., Lexington, Ky. 376
 10. Karl Krautheim, Honolulu, Hawaii. 375

Bulletin No. 19

.22-CAL. SLOW-FIRE MATCH

(26 Entries)

Conditions: Any .22 caliber pistol or revolver, 50 yards. To the winner, a sterling silver medal; second to tenth, bronze medals.

1. John H. Cataldo, Lyons Falls, N. Y. 374
 2. Robert J. Dunbar, Ames, Iowa. 367
 3. Millford Baker, Upper Darby, Pa. 367
 4. C. C. Crabb, Arcadia, Okla. 367
 5. Lawrence L. Martin, Pittsburgh, Pa. 361
 6. Hamilton Vreeland, Jr., Washington, D. C. 360
 7. Franklin D. West, Des Moines, Iowa. 360
 8. C. L. Herb, Sacramento, Calif. 360
 9. Karl Krautheim, Honolulu, Hawaii. 359
 10. D. A. Thimmesch, Dubuque, Iowa. 359

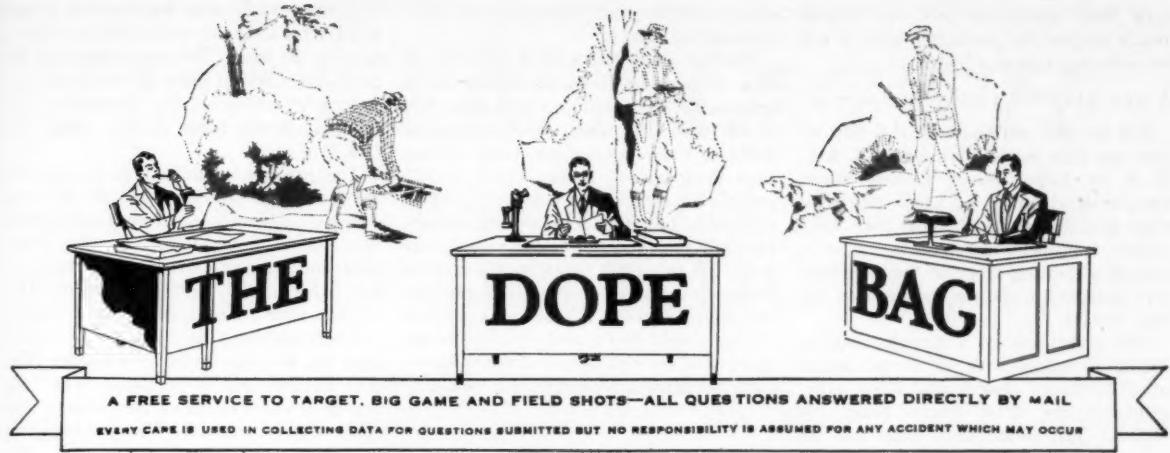
Bulletin No. 20

.22-CAL. TIMED-FIRE MATCH

(27 Entries)

Conditions: Forty shots for record, fired in strings of 5 shots. Any .22 cal. pistol or revolver, 25 yards. To the winner, a sterling silver medal; second to tenth, bronze medals.

1. C. L. Herb, Sacramento, Calif. 394
 2. J. H. Cataldo, Lyons Falls, N. Y. 392
 3. S. R. Kramer, Baltimore, Md. 388
 4. Lt. H. S. Miller, Fort Logan, Colo. 385
 5. Nick Lehmen, Medford, Wis. 384
 6. James Schroeder, Appleton, Wis. 384
 7. Robt. J. Dunbar, Ames, Iowa. 381
 8. E. M. Ludlow, Penn Yan, N. Y. 380
 9. H. P. Miller, Rock Island, Ill. 378
 10. D. A. Thimmesch, Dubuque, Iowa. 377



Conducted by F. C. Ness

NEW SHOOTING EQUIPMENT

ALL shooting equipment to be reviewed in the "Dope Bag" must be at hand for examination before it can be given space in our columns. The best way of judging new products is to use them, and they are all put to practical test. Because of the great number of more or less meritorious gadgets received, it is necessary to try them in groups. Some of the production samples win a printed mention, while unworthy articles and pilot models get thoroughly criticized for the maker's benefit. In anticipation of fellow members' curiosity, the following experience is given as a typical example of our work.

On a hot and humid June day—hot even for Washington and Virginia—I phoned members Sam Barr and Sergeant A. A. Hoffman, a pair always eager for a shoot of any kind. At 3 o'clock (and the thermometer's peak) Barr stopped for me and then at Hoffman's for the balance of our equipment. Francis joined us before we packed our outfit through the woods to the end of the new highway fill which served as our backstop.

THE ZIP IN THE .270 WINCHESTER

In the G. R. C. leather gun cover (which fit the gun perfectly) I had a borrowed N. R. A. type Model 54 Winchester in .270 Winchester caliber. The gun was exactly as issued by the factory and fine in every particular. I had a Zip steel adapter for the rifle chamber, and a box of Zip loads with jacketed bullets of about 90 grains weight. The muzzle velocity developed was around 1,435 f.s. They were mighty slow and inconvenient to load while lying prone in all that heat, but they were surprising in shooting performance.

We used the 100-yard Small Bore target and held the bright gold bead at 6 o'clock. The distance was slightly more than 125 yards and I gave the Lyman 48W rear sight 22 minutes elevation which proved about right. Our 5-shot groups ran: 6, 4½ and 4 inches at 125 yards. The four of us ran a prone match while sighting in on the 2-inch bullseye, and a score of 81 won. Remember that was on the 100-yard target at 125 yards with gun and sub-load as issued.

THE WESTERN 150-GR. SOFT POINT CARTRIDGE

Riggs had sent only 20 rounds of the new Western ammunition for the .270 Winchester and forced us to shoot 5-shot groups. At 125 yards, they measured, center to center, 4, 2½, 3 and 2½ inches, with the factory sights. The sight adjustment was changed for each group, and with the final five shots Francis got 3 "tens" and 2 close "nines" on the small-bore target. The Lyman receiver sight as now set showed 12 minutes elevation.

This heavy, soft point, round nose bullet is kept below the critical velocity of 2,700 f.s. to save meat, but it has plenty of lead exposed to insure killing expansion. It is designed for minimum deflection in brushy deer cover and in game. It seems to have plenty of power (especially at the stern) but, personally, I vote for the 3,000 f.s. loads for all game in the deer class, even at the risk of spoiling an additional steak of venison. Continued experience bears this out. Stalkers and cautious meat-hunters will probably find the 150-gr. soft point sub-velocity cartridge very satisfactory, but for sportsmen's clubs and other gang hunters who want to positively stop an excited animal in its tracks I advocate the standard 130-gr. bullet at the

highest velocity and, in .30 caliber, the 3,000 f.s. loads with blow-up bullets of around 150-gr. weight.

THE HART RECOIL BOOT

As intimated above, the Western 150-gr. S. P. load gave plenty of recoil. This would have been unpleasant in our light garments had I not anticipated it by lacing a leather recoil boot on the butt of the Winchester. The (1½ x 5) Hart boot fits the Winchester stock like a glove when laced in place with the leather thongs provided. In this boot the Hart Arms Company has made a departure by using three layers of sheepskin in lieu of sponge rubber to absorb recoil. I do not know what time and water will do to such a pad, but it proved satisfactory in fresh condition. It does save the shoulder and it feels stable and secure as made. Should the wool become soaked or too solidly packed, it can be easily removed and renewed. This pad increased the stock length about ¾ inch.

A RUBBER SHOOTING MAT

To protect our tender elbows and hips we used a cushion of sponge rubber 1 inch thick, made into a mat by the Sponge Rubber Products Company, of Derby, Conn. It is covered by a rubberized fabric and is not unduly expensive. One bad feature is heat absorption. On this trip it played the villainous part of a solar furnace and I laid in a pool of my own perspiration until we were driven into the shade of the adjacent woods. The red dye used was not fast and our nice white clothes became badly stained. In other respects the mat was good, being very comfortable and convenient to use. It is pretty heavy and slippery and awkward to carry. When these several objections

have been eliminated and the finished article reaches the production stage it will be reviewed at greater length.

A NEW BAUSCH & LOMB SPOTTING SCOPE

For spotting our shots on this trip we used the pilot model of the new B. & L. N. R. A. Junior Model spotting scope, for the development of which particular draw tube design the National Rifle Association is directly responsible. It is a first-class spotting scope of the non-prism type designed to sell for considerably less than \$30.00.

The main body is a straight cylinder $2\frac{1}{4} \times 10$ inches with an overall length of $12\frac{1}{8}$ inches closed, and $17\frac{1}{8}$ inches extended, the draw length being $4\frac{1}{8}$ inches. The single draw tube and the main body are of an aluminum alloy, the body being chemically stained a beautiful black color which goes all the way through the metal and cannot rub off. Threaded metal caps seal and protect the instrument when closed so that it may be tossed into the shooting kit or handbag and carried with the greatest possible convenience.

The concave eyecup of hard rubber is threaded and may be unscrewed from the eyepiece when spectacles or shooting glasses are worn. With the eye naked it is necessary to press the brow against the top of the eyecup to get the full breadth of field, and it is better with eyecup removed unless a very stable support is employed.

The figures I give here are not official, being merely the measurements as I take them off the first pre-production sample. The magnification appears to be no more than 17X. The diameter of the objective lens is 45 mm., and of the ocular lens 10 mm. The diameter of the exit pupil is very nearly 3 mm. The breadth of field apparent is about 100 inches at 100 yards.

The focus is very fast, being a combination of draw and micrometer movement. The draw tube is pulled back for approximate focus and it is then turned for exact focus. This semi-micrometer focusing arrangement also serves to prevent knocking the draw tube out of focus easily with the hat brim as you draw up to the glass to spot your shot. Training on the target is also fast, as the center of view coincides with the axis of the main body and two "sights" on the top of the barrel of the scope serve effectively to get a rapid alignment on the target. We successfully used this scope offhand in spotting for four 10-shot scores on the N. R. A. 50-yard target, every .22-caliber bullet hole being properly called as fired in the black as well as in the white. This would indicate a fairly low magnification and very good resolving power. It was late in the evening in a wooded hollow,

which condition calls for plenty of light-transmitting ability.

The definition of details in the field of view as given by this little instrument is remarkable. Using it in the X-Ring Kit Stand with the observer lying prone doublets (two intersecting bullet holes) were distinguished in the black at 125 yards. To date it has not been tried at 200 yards, but it is certainly satisfactory for the Dewar course and other small-bore work. It is a most excellent pistol glass. Owing to its low cost and neat proportions and optical excellence it deserves popularity and should find a ready market among those shooters who cannot afford to invest twice the price in a fine prismatic glass.

THE CHARLES DALY HORNET

ABOUT a year ago I received a pilot model of the Daly sporter designed for the .22 Hornet cartridge. Now I have just tried a production model of this rifle and the most appreciable change I note is in the stock, which is a pretty good copy of the Griffin & Howe Sporter stock, cheek piece horn tip and all. The buttstock length, however, has been shortened because of the double set trigger on the Daly. The length of pull to the rear set trigger is only $12\frac{3}{4}$ inches. The front trigger is an inch forward and this inch reach spoils the grip. It should be ordered with a single trigger placed in normal position to make the pistol grip satisfactory and then the buttstock will have to be lengthened about an inch.

The same criticism applies to the forestock, which is too short as measured from the front trigger, although the sling swivel is the required 16 inches from the rear (or set) trigger. The overall length of the stock is 31 inches, which is of a good grade of walnut. The workmanship is good on the wood as well as on the metal and the job as a whole is a good-looking one. There is 10 inches of fine checkering on the forestock and the pistol grip is also neatly checkered and capped. The cross-grooved buttplate is of shotgun type, rounded from side to side and slightly concaved from heel to toe. It measures $5\frac{1}{8} \times 1\frac{1}{8}$ inches. Its angle gives a pitch down of 3 inches at the muzzle.

The drop from the metallic sights is $1\frac{1}{2}$ inches at the comb and $2\frac{1}{4}$ inches at the heel, being 1 inch greater from the scope sight. The rear sight base is a long lug on the barrel with two folding leaf-sights for 100 and 200 yards respectively. The front sight is a white metal bead on a neatly matted ramp base held by a barrel band. There is a detachable hood with two sets of slots; the higher slot for the sighting position and the bottom slot for the protecting position of the hood. The sample was also equipped with a Hensoldt

Ziel-Dialyt 23/4X wide field hunting scope in a Daly side mount with windage adjustment in the base. The open sights can be used with scope in place or the scope can be quickly detached by turning up the single clamping lever in the mount to free it.

The gun has beautiful lines because of the absence of projections on the receiver which is fashioned out of a straight cylinder of steel. Even the flat top safety lever does not project above the low receiver line either in "off" or "on" position. The straight lines are relieved by a neat design (of dots and wavy line) stamped or rolled into the receiver metal as a border line. The receiver top is stippled. The bolt handle is blued to match the receiver and the knob is checkered. The cocking knob is a neat knurled disc of ample size. The bolt and two triggers are finished bright. The blued metal parts are almost black and the oil-finished stock is very dark.

Because of the pleasing lines of the receiver and action (which would be spoiled by any receiver sight or scope base) I would want only dovetail blocks on the barrel for a long target type scope. A 20-inch or 24-inch Malcolm scope in non-detachable Malcolm "C" mounts screwed directly to the barrel would be the ideal arrangement for saving the smooth appearance. The best-looking peep sight would be a cocking-head sight, but this would probably increase the inertia of the striker too much to be practical as the striker travel is only 3/16 inch.

The bolt is also a straight cylinder in outline as there are no lugs and no cocking-piece projection. The locking lugs project from the receiver walls on opposite sides and engage slots in the middle of the bolt. The $7\frac{3}{4}$ -inch bolt seems unduly long for the small Hornet cartridge. The sear acts as the bolt stop and the bolt handle is the safety lug. The bolt is cone-shaped in front and the barrel is concaved to receive it. This funnel acts as a guide to the chamber for the cartridge which need be merely dropped into the ejection port and the bolt closed upon it. The extractor slot may very occasionally catch and hold a soft-nose bullet and cause a jam. This happened only once in single loading and not once when using the five-shot magazine. The magazine is very convenient to load as it is hinged to the floor plate and swings down and forward when its catch is released.

I had to move the Hensoldt scope forward to increase the eye distance on account of the short buttstock. The Hart recoil boot was used to increase the length and a total gain of 1 inch was thus effected. The eye relief of the Ziel-Dialyt scope is from $2\frac{1}{2}$ inches to 5 inches, allowing some little latitude in the matter of eye position

(Continued on page 35)

PALMA MATCH

SWEEPS EASTERN SMALL-BORE COMPETITIONS



EVERY shooter who won a first place in the 18 rifle matches at the Eastern Small-Bore Tournament shot Remington ammunition. So did a large majority of all those who got into the prize money. Out of 140 entries, 102 shot Palma Match or Palma Hi-Speed.

In the July *American Rifleman* were published a series of remarkable groups made from machine rest at 100 yards with Palma Match. Here are reproduced a number of similar groups made in actual competition in a gale of wind. 90 out of 102 possibles made at 100 yards in the five days shooting were made with Palma Match, and the same superiority was shown at all ranges.

On the next three pages we give you a complete picture of one of the greatest ammunition clean-ups in rifle shooting history. We invite you to look it over carefully, read the summary and then form your own conclusions.

You will agree that there is absolutely no substitute for the accuracy of Palma Match.

REMINGTON ARMS COMPANY, Inc.
BRIDGEPORT, CONN.

ORIGINATORS AND SOLE MANUFACTURERS OF KLEANBORE AMMUNITION

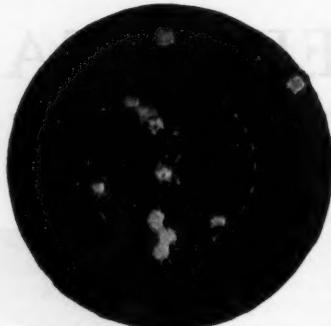
Remington



Above, ERIC JOHNSON, 2nd in Two-Man Team, and C. H. JOHNSON, 2nd in 300-Yard Individual.



FRANK C. HOPPE, JR., winner the Palma Individual. Left, a Hoppe group at 100 yards.



VIRGIL RICHARD
Winner the Swiss



Above, a fine group by LEONARD HANSEN of Perth Amboy R. C.



FRANK FROHM, winner Jersey City Special. Left, one of his targets in the Camp Perry Special.



EASTERN INDIVIDUAL CHAMPIONSHIP

1. T. A. Riley, D. C. N. G. 295
2. G. B. Sheldon, Poughkeepsie R. C. 293
3. G. Hess, Frankford A. R. C. 293
4. Dr. E. O. Swanson, Minneapolis 292

EASTERN INDIVIDUAL 50-YARD STAGE

1. R. Parry, Bear Rock R. C. 100-9X's
- M. Kemmerer, Bear Rock R. C. 100-9X's
(Also 4th, 5th and 6th)

EASTERN INDIVIDUAL 100-YARD STAGE

1. Dr. E. O. Swanson, Minneapolis 100-8X's
2. J. Onkey, Bridgeport R. C. 100-7X's
3. W. T. Bryan, Frankford A. R. C. 100-5X's

EASTERN TEAM MATCH

1. Bridgeport Rifle Club 1153
2. D. C. N. G. 1149
3. Bear Rock No. 1* 1137
(*3 out of 4 Palma Match)

300-YARD INDIVIDUAL

1. Henry Haase, Hartford 94
2. Chas. H. Johnson, Frankford A. R. C. 93
(Both shot Remington Hi-Speed)

PALMA INDIVIDUAL

1. F. C. Hoppe, Jr., Frankford A. R. C. 225
Plus 11 x 16 of the 224's

PALMA TEAM MATCH

1. Bear Rock Rifle Team No. 1 897
(A New World's Record)
(*3 out of 4 shot Palma Match)
2. Bear Rock Rifle Club No. 2 891
3. Bridgeport Rifle Club 890

TWO-MAN TEAM MATCH

- | | |
|---------------------------------------|-----|
| 1. Dr. E. O. Swanson | 786 |
| W. T. Bryan | |
| 2. Eric Johnson | 785 |
| Virgil Richard | |
| (*The first 6 teams shot Palma Match) | |

THE SMALL-BORE SPENCER

1. T. Samsoe, Perth Amboy R. C. 193
2. H. Frohm, Wilkes Barre R. C. 192
3. W. B. Woodring, Bear Rock R. C. 192

Above, W. B. WOODRING, winner the Grand Aggregate of the Small-Bore Spencer Match and the World's Record in the 100-Yard Individual.

Also on page 193, the results of the Small-Bore Spencer Match and the World's Record in the 100-Yard Individual.

Aggregate of the Small-Bore Spencer Match and the World's Record in the 100-Yard Individual.

World's Record in the 100-Yard Individual.

Remington Palma also Cleans up in England

"London, England, July 15—Palma scores success for Remington. The British Dewar Team and 50 high places; first 5 places in the World's Record; National Championship; 16th place in the aggregate."

Shoot Palma

V Wins Them All

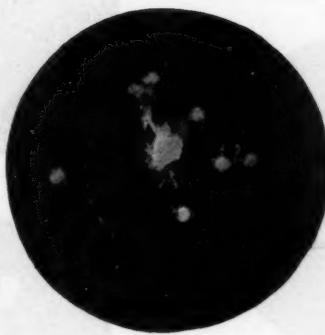


front row No. 1, winners Palma Team Match.
Held at Wilkes-Barre. Runners up, Bear Rock No. 1
Handwerk. Albert K. (Papa) Hoppes, in

Right, W.M. P.
SCHWEITZER, winner
the 50-Yard Individual
and the 100-Yard Individual.
Above, one of his
fine 100-Yard possi-
bles.



Above, FRED KUHN, mem-
ber of the Bridgeport
Team, winners Eastern
Team Match, and the
individual winner Camp
Perry Special.



THERKILD SAMSOE,
winner Small-Bore Spencer.



T. A. RILEY, winner Eastern
Individual Championship



W. T. BRYAN and DR. E. O. SWANSON,
winners the Two-Man Team Match. Above
photo, a 100-Yard possible by Bryan; and
below, one by Swanson.



L. E. BITTNER, who shot
two 1-inch possibles at
100 yards. Right, a
Bittner group which
measured 0.92" center to
center.

50-YARD RE-ENTRY
1. Earl Handwerk, Bear Rock R. C. 500-47X's
(Also the next 5 and 14 in 17)

100-YARD RE-ENTRY

1. W. B. Woodring, Bear Rock R. C. 500-32X's
(Also the next 4 and 15 out of first 17)

200-YARD RE-ENTRY

1. J. C. Lippencott, Maplewood R. C. 468

300-YARD RE-ENTRY

1. J. C. Lippencott, Maplewood, R. C. 236

W. B. WOODRING the Grand Aggregate
and the 100-Yard Two-Man Team Match.

England
ma scores success at Bisley Matches, July 10-15. 16 of
first 5 in aggregate; 50-Meter International, 396, equaling
chip; 16 including first 7—all shot Palma."

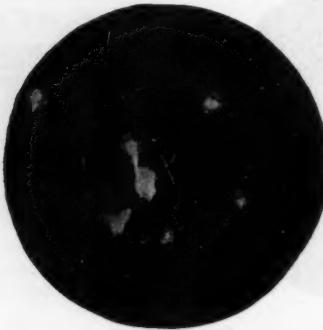
match to Win



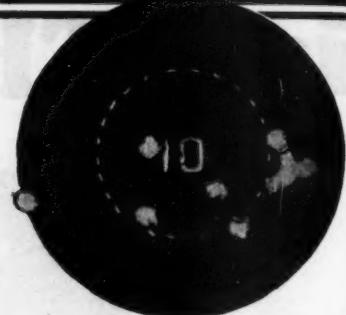
Left, RALPH McGARITY'S possible in the Camp Perry special.

Right, Notice the small vertical in this group by L. J. MILLER.

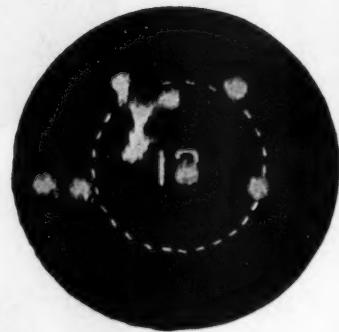
Below, J. D. McNABB deserves credit for this 100-yard possible.



J. B. MILLER of Lewisburg, Pa., shot the one to the left.



BLAIR EVANS fired the one on the right.



HI-SPOTS AT SEA GIRT

IN the Eastern Individual Championship 12 x 14 possibles at 50 yards and 3 x 4 possibles at 100 yards were shot with Palma Match.

IN the Eastern Team Match 5 x 6 possibles at all ranges were made with Palma Match.

THE only possible of 225 x 225 in the Palma Individual was shot with Palma Match. 11 out of the 16 224's in this competition were also shot with Remington ammunition.

IN the 100-yard Individual the first 4 places were won with Remington and 15 of the 17 prize winners shot Palma Match.

IN the Camp Perry Special 10 out of the first 11 shot Palma Match. In this competition there were 35 scores from 397, the winning total, down to 390. Of these, 27 shot Palma Match, 15 out of 18 possibles at 50 yards were made with Palma Match.

IN the 50-yard Individual the first 4 places and 14 out of the 17 prize winners shot Palma Match. 14 out of 17 possibles in this competition were put on with Palma.

IN the Palma Team Match 2 shooters, Marlin Kemmerer and W. B. Woodring, scored 225 x 225 with Palma Match. These were the only possibles made in this competition.

IN the 300-yard Individual Championship Henry Haase and Charles H. Johnson scoring 94 and 93 respectively both used Palma Hi-Speed. They finished first and second.

IN the 50-yard Re-entry the first 6 and 14 out of the 17 prize winners shot Remington. They made 47 perfect scores of 100.

IN the Grand Aggregate

In Match, the most important of the whole series, the first 7 places were taken with Palma Match and 14 out of the 17 prize winners also shot Remington ammunition.

IN the 100-yard Re-entry Match the first 5 and 15 out of the 17 prize winners shot Palma Match and made 23 possibles.

THE first day of the tournament young William B. Woodring, who won the Grand Aggregate Match, and whose consistent shooting was a feature of the whole tournament, shot 5 possibles in the 100-yard Re-entry and then went over to the 50-yard range and ran 50 consecutive 10's which contained 46 X's.

EARL HANDWERK of Bear Rock scored 500 in the 50-yard Re-entry and had a grand total of 47 X's.

IN the 100-yard Re-entry all three riflemen who scored 500 shot Palma Match. W. B. Woodring was high with 32 X's, W. T. Bryan had 31 X's and Earl Handwerk 26 scoring in the 1" center.

THE whole Sea Girt Tournament was fired through a succession of gales yet Palma Match won every rifle event on the program but one, and that was taken by Palma Hi-Speed. Approximately 90% of all the possible scores made at all ranges were put on with Remington Palma Match proving conclusively:

1st—That Palma Match has set a new standard of accuracy in small-bore rifle shooting.

2nd—That only Remington Palma Match ammunition has this superior accuracy.

3rd—That the wise riflemen who win shoot Palma Match.

**REMINGTON ARMS COMPANY, Inc., Bridgeport, Conn.
ORIGINATORS AND SOLE MANUFACTURERS OF KLEANBORE AMMUNITION**

on the comb. The exit pupil is also large, allowing some lateral relief. The reticule was a pointed picket plus side bars. A blunted picket or flat top post without the side obstructions would be faster and much better.

The action reliably handled all loads, old type, battered or new, slow feed or fast, through ejection port or through the magazine. Some of the cartridges had beveled rims, some had soft-point bullets. Others had hollow point bullets and square edge rims. Our shooting was at 125 yards prone. The 10-shot groups with the poorer loads were enlarged to more than 5 inches by two or three wild shots out of the normal group. The three best loads gave 10-shot groups of 3.70, 3.00 and 2.62 inches. The best load was checked by a 12-shot group which measured 2.87 inches between centers of the two bullet holes most widely separated at 125 yards. At 50 yards standing our 5-shot groups ran from 2.3 inches to 4.0 inches.

Several features of the gun were a handicap to good shooting. The trigger pull was smooth and just over 3 pounds, but the forward location of the front trigger imposed a grip handicap. The buttstock was too short and the head had to be drawn back in an unnatural and uncomfortable position. The small European swivels designed for a carrying sling were too narrow to take any of our shooting slings. The pointed picket of the scope sight was lost in the target and a definite point of aim could not be maintained.

The 24-inch barrel seems to be accurate enough. There is an abrupt taper or step in it near the breech and from this point it tapers from $\frac{3}{8}$ inch to $\frac{9}{16}$ inch at the muzzle. The first sample had 6 deep and wide grooves and a 10-inch twist. The chamber conforms closely to standard Winchester specifications. There are no slots in the barrel. The one fired seemed to prefer the Hi-Speed Hornet loads.

The action felt a bit rough upon the final closing or turning down of the handle, and the safety could be a bit smoother. When closed it is pretty well sealed against debris, dust and rain. It has many desirable features, including fine lines as noted above. Personally, I should like to own one, but, in view of the high cost, I do not feel justified in recommending it over our high-grade American rifles in this caliber. High-grade imported arms cost twice as much and fall considerably short of being twice as good.

NOTES ON PETERS

THE Peters Cartridge Company is known to small-bore target shooters as manufacturers of Tackhole, than which match load there is no .22 Long Rifle cartridge more accurate. This is honestly accounted for by its Semi-Smokeless powder,

its light crimp, and its chlorate primer. Tackhole is not a hunting load adapted for rough handling and also it requires a careful and thorough cleaning of the gun at the close of the shooting day to completely remove its salty primer residue from the bore.

Peters, to me, represents the brand of the first accurate sporting cartridge I found for my 30-inch Rock Island Krag. Strangely enough this was the 150-grain Protected Point which jumped through the large bullet seat of the original Krag barrel and outshot the 180-grain loads and equalled the accuracy of the blunt nose 220-grain F.M.J. Krag bullets for which the bore was throated.

I also have pleasant recollections of long-range kills on waterfowl in the Mississippi bottom-lands with the Peters blue colored shell, called the Premier, I believe. I also had my greatest luck on dove and snipe in those days with the Peters Target shell. Later I tried the High Velocity 10-gauge loads, and from 60 to 80 yards I shot the pattern of No. 4 chilled shot completely through popular ladies' magazines, which were thicker at that time than in these times.

More recently I tried the improved Peters Hornet cartridge, which proved as accurate as any Hornet ammunition I had ever fired. The Peters label calls it the "Rustless-Gildkote, Non-Fouling, High Velocity .22 W.C.F. (Hornet) Center Fire, Smokeless, 45 Grain M. C. Hol. Pt. Bullet, For Single-Shot Rifle". Somewhat contradictory, the Peters ballistics table says: ".22 'Hornet' H. P., Expanding, 46 grains bullet weight, 2,350 f.s. muzzle velocity and 664 ft.-lbs. muzzle energy." The midrange height of trajectory for 100 yards is 1.0 inch, and over 200 yards it is 5.4 inches, in the table. This new Peters cartridge is certainly accurate in a good Hornet rifle, but I have some doubts as to the chuck-stopping ability of the hollow-point bullet at only 2,350 f.s. muzzle velocity, especially after the velocity has fallen off to less than 1,800 f.s. out beyond 100 yards, where most of the chucks are. No Hornet load is more persuasive than the soft-point bullet hand-loaded to 2,600 f.s. when it comes to keeping chucks immobile.

A NEW 100-GRAIN .250 CARTRIDGE

To get on with the story, Peters has a new deer cartridge in .250 Savage caliber loaded with a hollow-point 100-grain bullet to 2,850 f.s. This is one of the very most powerful factory loads for bolt-action guns in this caliber. The muzzle energy is 1,804 ft.-lbs. and 100 yards farther out it is nearly 1,500 ft.-lbs. The remaining velocity at 100 yards is 2,580 f.s. The midrange trajectory over 200 yards is only $2\frac{1}{2}$ inches and over 300 yards it is

only half a foot. This cartridge should kill any American game, but it is almost ideal for Eastern use on deer and black bear as well as on chucks. Because the maximum pressure goes up to 50,000 pounds, now and then, it is best adapted for bolt-action rifles, and that does not mean the Krag altered to .250 Savage caliber.

I tried this cartridge in a .25 Remington Model 30-S which had been altered to .250 Savage caliber by R. F. Sedgley, Inc. The bolt face was squared up and the chamber lapped out by E. H. Hoffman. At 125 yards the first 25 shots ran as follows, in groups of five: 3, $5\frac{1}{2}$, $3\frac{3}{4}$, 3 and $2\frac{1}{2}$ inches. Then I tried it on Barr and Francis, a couple of woodchuck hunters, who fired on the same target, and got their ten shots well centered into a total group of $3\frac{1}{2}$ inches.

A FULL-CHARGE .38 SPECIAL WAD CUTTER

One of the best innovations of Peters is their complete line of .38 Special caliber revolver ammunition, including high velocity loads, heavy bullet loads and special wadcutter loads. A nice feature of the flat-end loads is the protection given the square edge of the wadcutter bullets by seating them flush with the case mouth. Thus shielded by the brass case the clean-cutting edge of the lead bullet cannot become battered or deformed no matter how roughly it may be handled. Incidentally, I noticed one of my revolvers quit accumulating a ring of lead in each chamber when using these Peters Gildkote Oiltite wadcutters.

The cream of the lot is the 158-grain wadcutter full charge cartridge. This full charge load qualifies for the service load matches and I would continue to use it, even where midrange loads are permitted, because it does not tip or keyhole in the target like the lighter bullets are wont to do, especially at 50 yards. It cuts a clean-edged full-diameter hole for scoring convenience and it is very accurate. The muzzle velocity is normal (860 f.s.) and the impact is also normal.

We were surprised to find that no change in sights or aim was required in using this load. E. H. Hoffman used his M. & P. Smith & Wesson and I used my Target Smith & Wesson and the aim needed to center the group was 6 o'clock on the black at all ranges, including the Standard American targets at 20 yards and 50 yards. This is a bit unusual, as variations in hold, grip and vision change the impact with the same gun and load, and in different guns barrel time has its influence on changing the impact. We got as good offhand accuracy with this ammunition as with any .38 Special load we have tried. Owing to the maximum striking area of the flat-end bullet and its 258 ft.-lbs. of energy at the muzzle, it has

good stopping power. Because the recoil is less than that of the 200-grain loads or high velocity ammunition in the .38 Special caliber, it is excellently adapted for the lighter guns, like the Smith & Wesson M. & P. and Safety Hammerless pocket revolver and the Colt Police Positive Special and Detective Special pocket revolver.

"VISIBLE BALLISTICS"

At the Peters ballistic station they actually see just what takes place in their test firing by making silhouette photographs of such things as shot charges and bullets in flight, done by means of very short exposures, or as they say, "in one-millionth of the second." "Sparkography" pictures and others made with "a special oscillograph camera" are used to illustrate an interesting booklet "Visible Ballistics", issued by the Peters Cartridge Company, Kings Mills, Ohio. There are twenty pages, more or less, dealing briefly with choke, shot string, gas seal, pressures, recoil and barrel time. When writing to the above address also ask for the special folder on recoil and for the conveniently condensed Peters ballistic sheet.

THE UNION SCOPE MOUNT

DEER hunters who have managed to acquire a second-hand Zeiss or Hensoldt scope at moderate cost, and are seeking some economical means for using it on their Krag rifle, or other sporting arm, will find what they are seeking in the Union Hunting Scope Mount made by the Union Auto Specialties Company of Brookville, Pa. This is a light and simple bracket mount designed to be attached to the left side of the receiver. It appears to be entirely practical, and it costs less than \$10.00 complete for scopes having 22-mm. tubes, which means the Zielklein and Zielyt models.

The Union Mount consists of four major parts: the long permanent base, the bracket, and the two clamp rings. The two arms of the bracket holding the clamp rings are widely separated, or 4½ inches between centers, and the permanent base plate is practically that long, assuring a very solid and secure bearing. The base plate is held by three screws and two pins. These three special screws are really double diameter studs and, while they hold the permanent base to the receiver, they project through the bracket and are fitted with stud caps to hold the bracket to the permanent base. These stud caps are screwed down with a special straddle-type screw-driver furnished with the outfit. The three studs and the two pins take in a distance of more than 2½ inches on the receiver, and in addition there are two projecting studs on the permanent base which

fit holes in either end of the bracket nearly 4 inches apart.

There are two clamping screws in each of the clamp rings which hold the scope. These clamp rings are held to the bracket arms by a large screw which fits a hollow, threaded stud on the bottom of the clamp rings. This gives a flat contact and a broad friction hold and still allows the clamp rings to be turned without turning the screw or threads.

The hole in the rear bracket arm is oblong in shape. An eccentric lug or cam bears against the straight side of this oblong hole and moves the clamp ring to right or left. The cam, or eccentric lug, is a part of a large disc nearly an inch in diameter. This disc is graduated and numbered in units of 5 minutes of angle on its edge. Each graduation mark is designed to give 1 inch change in the center of impact on the target at 100 yards, or practically 1 minute of angle. In making the adjustment the screws holding the clamp rings in front and rear bracket arms are both loosened and I also find that it is somewhat difficult to turn the adjusting disc, although there is a slot to fit a large screw-driver provided in a convenient location. This means that this scope is intended to be sighted in for the one hunting load and then left locked.

The scope initially is adjusted to bring the sight, or graticule, into the center of the field of view and then the mount is attached so that the scope sight agrees with the previously adjusted metallic sight. Shims are provided for use under the clamp ring to compensate for errors in attaching the permanent base. Once the scope is properly attached and zeroed, it can be removed (in its mount) from the permanent base without change in zero. In the sample mount the scope clears the metallic sight, and, according to the literature of the maker, lower brackets can be furnished to leave the scope at any height above the receiver required by the particular action or desired by the owner.

This mount is made of heat-treated steel and the finish is blued. It is neat in appearance but not as attractive as some of my other mounts. Good points are: the low cost, the long bearing of the base, the wide separation of the clamp rings and the absence of back lash in the windage adjustment. The mount brackets (made of spring steel) do not appear heavy enough to withstand a hard bump, and I would not recommend it for a long distance big game hunt, but it appears entirely practical for local hunting in the West or East when used with any of the light compact wide-field hunting scopes. For the heavier 4X models I do not like any bracket mount. The weakest feature of this Union Mount is the attachment of the scope clamp-ring with a single screw,

which must be drawn up very tightly and then relied upon to hold the adjustment. The slightest movement of either clamp ring, of course, would change the zero greatly. In attaching the Union Mount the following special tools are needed: 1 No. 20 drill, 1 No. 28 drill, 1 No. 0 taper pin reamer, 1 No. 10-32 tap.

THOSE LOW-PRICED MOSSBERGS

THE \$6.00 Mossberg single shot and \$10.50 Mossberg repeater, both bolt-actions, were reviewed in the last issue. The Model 30 single shot had a 7-pound pull and was fired as issued with factory sights. At 25 yards prone my score on the N. R. A. target was 86, with three of the five scoring-bulls showing groups small enough for "possibles", but off center. The cartridge was Kleanbore lubricated. E. H. Hoffman's score was 87. My groups with Kleanbore and Palma Kleanbore were 13/16 inch and 7/8 inch. At 50 yards the Kleanbore group was 3½ inches.

Francis tried this single shot at 50 yards prone with Kleanbore High Speed lubricated. The 10-shot groups ran 3 1/8, 2 3/4, and 2 1/2 inches. The last group also had a "squib" below the target. There were several of these "squibs" with signs of low pressures and indicating an overly large chamber. One group was fired with Federal XL Xcess Speed and this measured 2 7/8 inches. This dry cadmium-coated bullet had given me a 2 1/2-inch group in the Mossberg repeater.

The Model 140 repeater was fired at 50 yards with factory sights as issued. The repeater had a much better trigger pull. The ten cartridges for each group were loaded through the magazine and they fed into the chamber without catching or shaving. Francis did the shooting from prone position.

The 10-shot, 50-yard groups were as follows: Winchester Precision, 3 1/8 and 2 3/8 inches; Palma Kleanbore, 2 3/4 and 1-13/16 inches; Palma Match, 2 1/2 and 2 1/8 inches and Kleanbore High Speed 2-11/16 inches. That is not bad for a \$10.50 repeater. In a machine rest or with a scope sight and a sand bag these groups would have averaged an inch smaller in maximum diameter. Several of them had a normal cluster of 8 or 9 shots in 1 1/4 to 1 1/2 inches.

THE MODEL 1933 NOSKE

RUDOLPH NOSKE, El Camino Real, San Carlos, Calif., has now settled down on a single type of Field Scope outfit which consists of a 2 1/2X scope with 6-inch eye relief and only elevation adjustments in the scope itself. This scope has a

clear field of 40 feet at 100 yards and a single flat-top aiming post, either tapered or bottle neck, at the top. The elevation turret is graduated in (approximately) minute of angle units, and its slotted locking screw may be controlled with a small coin.

The windage adjustment is now in the mount, and it is effected by springing the front of the mount to right or left by means of opposing, slotted screws. There is a third screw on top to lock the adjustment. This means that the Noske outfit is not as well adapted for frequent changes in adjustment as it was when the scope itself was equipped with micrometer windage and elevation adjustments controlled by large dials, which, incidentally, were protected by threaded caps.

The bracket proper is made of fairly thin steel only $\frac{1}{16}$ inch thick. This metal is bent to form half of the clamp ring holding the scope, and it is somewhat stiffened, although not appreciably strengthened, by the heavy block forming the other half of the clamp. These two parts are held together by single screws, top and bottom.

The permanent base, which is held to the left side of the receiver with pins and screws, forms a male dovetail $2\frac{1}{2}$ inches long. This is split its entire length, and it is wedged to fit the female dovetail in the mount base very tightly by means of a conical-pointed locking screw equipped with a capstan head for convenient control. The sample was equipped with two of these screws, 1 inch apart, in the base and this is a new feature which I particularly like. It is, in fact, the only improvement I note in the 1933 Noske design. The black finish is also more attractive than the blued finish in former models I have used. As formerly, the scope itself is equipped with adjustment for individual eye focus and for removal of parallax. Because of the long eye relief this is a good outfit to use on any rifle having a high angle bolt lever, or a centrally located safety lever, like the Winchester, Springfield and Mauser bolt-action rifles. When once adjusted by the trial and error method, this scope can be removed from its permanent base as often as is desired without affecting the zero.

HOME-MADE JACKETED BULLETS

S. S. WEBB, gunsmith, of 860 Packard Street, Warren, Ohio, furnishes an outfit for making jacketed bullets in popular calibers. The sample outfit sent in for trial is for the .22 caliber, and is designed to make jacketed bullets .224 inch in diameter for the .22 Hornet caliber. The jacket is formed by using the fired cases of the .22 Short cartridge or BB Caps and one of the two punches furnished is used to drive the fired case through the

die to remove the rim in the first operation. The lead slug is then dropped into the case and the two are squeezed together in the die by using it as a screw press, the head being threaded to the die proper and equipped with a turning bar. This is all done holding the die in the hand as no great effort is required to develop a powerful force through the screw arrangement. By following Mr. Webb's directions I obtained very good-looking bullets. A second punch is used for forming the base of the bullet in the die and this punch is shaped to leave a square-edged concave or hollow base which gives the bullet a factory-made appearance. Finally, the complete bullet is driven through the die to insure an even and uniform diameter.

A NEAT SLING KEEPER

VICTOR J. HADIN, 1466 State Street, Schenectady, N. Y., has designed a very neat metal keeper for shooting slings. The sample was built for the Model 1907 Army leather sling which is $1\frac{1}{4}$ inches wide. It is very slightly wider than the sling and the maximum thickness is about $\frac{1}{2}$ inch, so that the proportions are extremely small, and it is as simple and dependable as it is neat. A claw-edged lever wedge is the trick of the device. There is nothing to get out of order.

To put it on the sling the lever is flopped backward until the claws may be hooked over the short edge of the lever and then both are turned to right position to permit shoving strap and hook through the keeper. The free end of the strap is now run through the keeper on the proper side, and it is ready for use. It is shoved down toward the loop on the left arm and it remains where left. The curve given the strap by the arm loop jams the lever securely until it is deliberately loosened. This is done by merely pinching it between thumb and trigger finger and sliding it up the sling. It is all done with one hand exactly as with the less secure leather keeper, which has the very annoying habit of continually working loose until it is wedged firmly with a cartridge or empty case.

THE SEDGLEY HANDBOOK

AN interesting catalog featuring Sedgley Springfield Sporters has come to light. While it is devoted chiefly to listing Sedgley custom sporters and Sedgley gunsmith work, three of the 15 pages are devoted to practical dope on shooting in the various positions. The catalog pages are embellished by test groups, one for each caliber in which Sedgley Sporters are made. The groups shown are very good as made with standard sights from muzzle and elbow rest at 100 yards, but there is no statement

to indicate whether they are average or selected groups, or, on the other hand, the only groups fired with each rifle.

Having seen, handled and shot a number of Sedgley rifles, I can recommend them as listed, with a single exception. That exception is the Sedgley Krag Spoter in .250 Savage caliber. Shooting any Krag in .250 Savage caliber is a dangerous practice and one I cannot recommend. The service pressure limit for the Krag was 41,000 pounds. I have seen two Krag actions cracked by Hornet handloads, indicating a narrow margin of safety. Even if the action is toughened by proper heat treatment it can gradually become weakened by the shock or strain imposed by excessive loads, and some of our factory ammunition in the .250 Savage caliber goes over 50,000 pounds pressure.

THE EIGHTH 17-A INSERT

NEARLY every shooter is familiar with the Lyman 17-A target front sight and its 7 inserts in the form of 5 apertures and 2 square posts. Now an extra insert has been added in the form of a transparent disc with the center cut out. The whole target and immediate surroundings can be seen through the transparent material so that the black may be quickly found. Through the large hole in the center the vision is unhampered and the aiming point shows up clearly and distinctly, in sharp contrast to the dimmed surrounding portion.

I used this transparent disc in connection with the post and I found aim was much quicker and certain than without it. Using the 48-J receiver sight on my regular Model 52 Winchester I fired 100 shots on 10 targets at 50 yards in one hour, including walking 100 yards after each string to change the target. The first two shots were used as sighters but were counted in the score. Five of the ten different loads tried gave a score of 98 on the 50-yard N. R. A. target and normal (8-shot) groups of less than 1 inch. They were: Kleanbore, Super Match, Palma Match, Palma Hi-Speed and Kleanbore Hi-Speed Silvadry.

MEDALS and TROPHIES

The National Rifle Association says "The only line of real shooting medals in the U. S."

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AMERICAN METALCRAFTS CO.
ATTLEBORO, MASS.

Questions and Answers

EVERY week thousands of letters are received at N. R. A. headquarters and are routed to the eight different Departments. When a letter must be relayed for reply to several departments in turn, it is subject to delays and interoffice traffic is increased. On the other hand, when letters are confined to a separate N. R. A. function they can go directly to the proper department for final reply and, obviously, the office is relieved of unnecessary congestion, likelihood of loss is lessened and prompt service to the member is made possible.

All questions relating to guns, ammunition, shooting, shooting equipment and accessories should be confined to separate letters addressed to the Dope Bag. When it is desired to include Dope Bag questions in general N. R. A. correspondence, such questions intended for this department should be written on separate paper, marked for the Dope Bag and have the member's name and address LEGIBLY PRINTED on same.

INFORMATION WANTED

C. L. QUICK, who has often helped us out on identifying ancient guns and ammunition, is now in need of our members' help in the matter of dope for a book on which he is collaborating. In this case the customary sources of information have failed and the memory of old residents of Wilmington, Del., and New Haven, Conn., must be relied upon.

Information is wanted on the Delaware Cartridge Company, Wilmington, Del. It was in business in 1877. They were located at W. Front Street near Adams about 1879-80.

Similarly, information is wanted on the Standard Ammunition Company of New Haven, Conn. Their primers were patented October 1, 1878, and they were in business after that date, though evidently incorporated neither under the laws of Delaware nor those of New Jersey.

Old-timers from these two sections may be able to shed some light on the matter. Any pertinent dope obtained may be sent directly to Mr. C. L. Quick, 4240 Maryland Avenue, St. Louis, Mo.

THIS LEADING IN REVOLVER BARRELS

I HAVE been upon the point of writing to you several times in the past with compliments upon your very fine articles in our very fine publication, THE AMERICAN RIFLEMAN. It remained for me to get into difficulty with a gun so that I corresponded with Mr. L. C. Davis of Colts who has recommended that I write for your aid. So here goes.

It may be well to give a little history first. Last fall I became the possessor of a .44 New Service Target Model for .44 S. & W. Special and .44 Russian, $7\frac{1}{2}$ " barrel. This was, and still is, my ideal of a revolver and caliber. This gun was a failure. I couldn't do a thing with it. Made up my mind that if it was to be my ideal as a revolver, it would be only to look at, because I could not handle it. Then one day I examined it closely and found that it was badly out of line between cylinder and barrel. I wrote to Colt and sent them the gun with my complaint. Mr. Davis wrote me the nicest letter I've ever had and put a gun through the factory especially for me. It is a peach. I can't find thing wrong with it anywhere, and no one here can either. It is the same model as the other .44 Special and Russian New Service Target $7\frac{1}{2}$ " inch.

I immediately repaired to the range with two boxes of ammunition and tried it out. Made some fair scores. Then I started to reload for it. I can't afford to buy factory

cartridges, and know that I can do better with handloads as per experience of 20 years with .38 Special and .45 Colt, etc. Now the trouble starts. LEAD. The barrel leads up in a few shots so that accuracy is gone. Not just a few particles as one finds on his cleaning rag sometimes with factory loads, but solid caked lead for about one-third of barrel length, nearest breech.

I have Mattern's book on handloading and have read it from cover to cover again and again. I have read particularly the chapter on Revolver Cartridges. I have paid particular attention to fit of bullet. My barrel measures .427-inch groove diameter. The cylinder is larger, .428 inch, and lines up perfectly. I loaded 200 shells with regular Russian (Ideal Mold) 246 gr. bullet, sized to .427 inch in the Ideal lubricator, loaded carefully with 6 grains No. 5, well crimped. They leaded up my gun somewhat awful.

The bullets were molded from lead picked up at our butts melted "as is" and skimmed of slag and refuse, fluxed with wax. These bullets came from the mold about .431 to .430 inch. I have a die for lubricator which sizes to .427 inch. The lubrication is a home-made combination of tallow and wax. I noticed that the sizing smashes the grooves pretty well, but lubricant was in and on each bullet and each bullet looked good. The cases were neck-resized and expanded. The bullets did not fit the cases tightly. That is some could be pushed in with fingers and some required slight pressure to seat. The crimp seemed to hold each bullet firmly and the cartridges looked clean and good. The first 10 shots were 10's in police target at 25 yards. Then we were hitting all over. Cleaning disclosed lead. Now the other two N. S. T. guns that I sent back did the same thing exactly. So I am rather out of sorts about it.

All our boys are reloading the .38 Special caliber. There has been almost every imaginable variety of handloads used on our range this winter. But no one has had any trouble with lead, only me. And as I have the only .44 around, do you suppose, that .44 Special is an offender in the leading matter. I used to load, not so long ago, for a S. & W. Russian with a long cylinder for .44 S. & W. Special and never had trouble with any load leading.

I thought for a while that perhaps my bullets were too small, .427 inch for .427 inch barrel. But the boys are all using .38 Specials loaded by one of our members which are two or three thousandths smaller than the groove diameter of our guns and we find them extremely accurate. In fact we have each and all bettered all our records with them.

Mr. Davis says that someone else is having the same trouble as I with a similar gun. He suggests polishing out the barrel, but I do not believe it. I lean toward a reason involving size of bullet or temper of bullet. Perhaps the Colt Company do not make a good .44 Special.—F.A.H.

Answer: I am much concerned about your leading problem in the .44 Special caliber New Service Colt revolver. During a week's trip into New England last week I had dinner with Mr. Davis and he told me about your problem. This question of leading causes in revolvers has not been fully settled. Some arms were peculiarly free of it, and others were peculiarly susceptible to it. An obvious cause is poor alignment of cylinder and barrel, but this is rather uncommon in such revolvers as the Colt and Smith & Wesson factories put out in their military models particularly. Even in such revolvers leading occurs when the chambers and the

barrels are perfectly aligned. In such guns the theory is that the condition of the bore surface is the cause of leading when it occurs because varying the temper of the bullets in several experiments did not seem to have much effect on the leading trouble. As a consequence our theory has been to polish the surface of those barrels which were prone to lead because it was assumed that in spite of their fine appearance the surface was probably finely pitted or slightly roughened.

My theory is that the bullet starts, or jumps forward, without any rotation, and then must be gripped by the lands and grooves and started to turn. As the bullet moves forward into the rifle bore without any spin, it must, at the very outset, cross the lands and grooves which slant diagonally across its path, and it does this immediately at the breech until it acquires a rotating movement and follows the rifling. This initial cross movement starts leading immediately at the breech which extends towards the muzzle for a short distance as it builds up.

Lapping or highly polishing, the breech end of your barrel with extremely fine abrasives, followed by jeweler's rouge, may help, but it is not certain. Changing the temper of your bullet metal would not help greatly, unless you are using extremely hard, or extremely soft, metal. I believe the best average bullet temper to use for the revolver is 1 part tin to 15 parts lead, but you should get much the same results from any temper between 1 to 10 and 1 to 20. I believe you could help the conditions by using a bullet diameter from .001 to .002 inch larger than your groove diameter. This diameter, of course, should be no larger than your cylinder bore forward of the chamber, which serves as a lead for the bullet into the barrel breech. If you are using a soft temper of between 1 to 20 and 1 to 30, your bullets undoubtedly upset to fill this space forward of the chamber and then are swaged down in entering the barrel. It would also help to use a conical pointed bullet as this would help towards an easy entrance of the bullet into the barrel breech, and would be superior in this respect to the wad cutter or blunt nose design. Also if you are using heavy charges of Pistol Powder No. 5, I think it would help to switch to No. 80 powder because it is somewhat cooler burning and would decrease the tendency of fusing or scoring the base edges and sides of your bullet or in melting the base edges. Pistol Powder No. 5 or Bullseye, however, would be as good as No. 80 in somewhat reduced or target type loads.

Particularly I believe your trouble is in casting the bullets too large and in removing too much of the grease grooves in sizing down to .427 inch. I would, therefore, suggest selecting a bullet which is cast somewhat smaller, or about .4285 to .4295 inch for your particular gun, and in the same general design of bullet if you greatly prefer this design. Any of the mold makers could probably furnish such a mold on special request by cutting it with one of their worn cherries which have been discarded because they have worn down until they no longer cut to the full standard diameter, accepted for that caliber. If you do not mind changing the design, I would suggest selecting a bullet with very deep lubricant grooves, or with a very wide lubricant groove, which latter may be more shallow. Such a bullet as I have in mind is represented by the Keith-Ideal design, which was mentioned in a recent Dope Bag article in THE AMERICAN RIFLEMAN, and which you can find in the Ideal Hand Book. With such a bullet providing sufficient lubrication, I would suggest that you try a different lubri-

cant of proven quality, like the Ideal Bullet Lubricant, or the special revolver lubricant which is made and sold by W. A. Clark, Colton, New York.

Finally I will say that I feel confident that if you will do a bit of experimenting in your handloading for this gun along the lines suggested above, that you will succeed in eliminating the leading trouble you have been experiencing.

AN EXPERIMENT IN BREECH POLISHING

YOU will recall our recent correspondence in regard to the leading of my guns, and you asked that I let you know the results of my experiment with polishing the breech ends of the barrels.

Instead of using flour emery, I used pumice because I had it at hand. Also, as it is a milder abrasive than the emery, I felt a little safer.

In doing the work I pushed the brass brush through the barrel and then spread the pumice mixed with oil on the brush, and rubbed the breech end with a short stroke of a half or three-quarters of an inch. Really, I didn't do an awful lot of rubbing at any one time. In fact, what I did was divided into three efforts.

While the last time I shot the .44 SA there was a little leading, it amounted to only a small fraction of what the gun had been accumulating. Consequently, I am quite convinced that so far as this particular gun is concerned I am going to be able to practically eliminate the leading by simply polishing the inside of the barrel at the mouth of the breech end. In doing the work I have drawn the brush the full length of the barrel, a total of perhaps a dozen times, but aside from this I have confined all the rubbing to within 1 inch of the end.

It seems to me that the ends of the lands may have been just slightly rough, and started the leading. Then lead accumulated lead.—F. G. Morris.

HINTS ON TARGET SIGHTS

SEVERAL months ago I purchased a stock model Winchester 52 with speed lock, with which a friend and I averaged groups of 48% out of a possible 50, using factory sights and standard short-range targets. Judging by our scores and the fact that our matches were often won or lost by a single point, it would seem that our eyes are about the same in spite of the fact that my friend wears glasses and I do not. Now, if I may, let me present my problem:

After reading of the wonderful results to be obtained through the use of a Lyman 48-J, I had my rifle fitted with said sight, including a Parker-Hale 6-hole eyepiece, first having the eyepiece threads cut a bit so as not to interfere with the action of the bolt. Immediately my friend's average increased to 49%, while, strange to say, mine dropped many points. My groupings were perfect, five shots being covered with the end of a man-sized fountain-pen cap, but in every instance the groups were high and off on the right.

Shooting prone, with sling strap and elbow pads, I've gone into the matter quite thoroughly with no possible conclusion for my scores. According to my friend, my trigger pull is perfect, my barrel is perfectly level, I am in proper form, my ammunition—same as is used by my friend—is O. K., yet those shots will go to the right. We've swapped places in several instances;

my friend has slapped them into the black; my groups have been as good, if not better, but, alas, to the right. Do you think that the new sight brings out any possible difference in our eyesight?

Problem number two: In using the Parker-Hale eyepiece, which of the holes should be used at ranges of 50 feet, 50 yards, 100 yards outdoor (range facing northeast) and 50 feet indoors, respectively? Which should be used in bright sunlight and which on dark, cloudy days?

Problem number three: What do you think of the 17-A Front Sight for target shooting? I want clear definition of target and sight, and have never had any success with this particular sight in the past, probably because I'm not acquainted with the sight and do not know which disc to use on the various ranges. If possible, will you kindly mark the necessary information on the enclosed illustration?

Problem number four: If I put a scope on my rifle, will it enable me to shoot at 50 feet as well as I used to shoot with the standard factory sights? What about the 438 Field scope? Is it satisfactory for short-range work, or would you advise waiting until finances justify a Lyman 5-A Scope?

My work demands a great deal of my eyesight, and, except for my average before changing sights, I would place the blame on poor eyesight, but I would like your frank opinion of the matter. Too, I am interested in obtaining the very best combination in sights for target shooting, taking in consideration less eye strain, accuracy and finances.

There are several local riflemen who are interested in small-bore work, and it is highly probable that a club will be brought into existence within the next two weeks, or as soon as we hear from the National Rifle Association. If consistent, we will appreciate an autographed copy of your small-bore handbook.—E.M.

Answer: It is rather unusual for two shooters to shoot to the same zero with the same rifle and sight adjustment. This is due to differences in vision and differences in holding the gun, such as shoulder support, left arm support and differences in sling tension, elbow position and trigger pull. The difference in zero, however, is easily corrected with a micrometer sight like that on the standard 52 Winchester, and better still with the Lyman 48-J. You should make a notation of the adjustments you require for any given range and for any given light condition. If shooting outdoors at the same distance, you will probably need a different sight adjustment, and it would be of help to have a regular record of these adjustments in your scorebook or notebook.

The Lyman 17-A front sight would be of distinct aid in giving you clear definition, and I would recommend either the wide square post or one of the largest apertures. The usual trouble with apertures is that they are used too small. My average dropped 4 points in the N. R. A. matches one year on account of using an aperture one size too small for my vision. For your benefit I would say that it is practically impossible to get an aperture too large, while it is easily possible to get one too small. The same applies to the rear aperture. In poor light indoors, or on dark days outdoors, a very large aperture is needed, no matter what the range. If the sight is at some distance from the eye, a larger aperture is needed. As soon as you

notice cobwebs or a blurring effect, change to a larger aperture. You will get excellent results from any scope sight, and you will find that the 438 Field scope will not only give you greater accuracy, but will eliminate a considerable amount of eye strain when shooting in poor light, and especially on indoor ranges under artificial light. I have made many "possibles" with the Lyman 438 Field scope and with the cheapest Malcolm No. 4 scope on the 52 Winchester at the various short ranges from 50 feet to 50 yards, using N. R. A. targets.

I am returning your clipping, indicating the most desirable disc, and under separate cover I am sending you a copy of the Small Bore Rifle Hand Book, which I think will contain many helpful hints for you and your fellow club members.

SHOT LOADS FOR RIFLED BARRELS

I AM writing you on this question of shot in rifled barrels which is a real problem to me. I want them for aerial shooting in pistols as this is a level prairie country and in the past two years has become too thickly settled to permit using bullets; even of .22 caliber, much less the larger ones.

I am almost certain that half paraffine and half vaseline does not "ball" the load nearly as much as is popularly supposed in the .44 Game Getter at any range over 12 to 15 yards. I presume that the heat generated by the burning of the powder and barrel friction soften the paraffine to a large extent, but of course I have no way of determining this positively.

The only containers that I have been able to procure were Winchester XL and patterns approximate the results you would obtain throwing the same amount of shot in your hand.

As you surmise, the loading companies do not furnish them and they are too long anyway. Making them by hand is too tedious to be practical in my estimation.

I have read that Sweely performed a great deal of experiments in this line even using copper containers, although as near as I can learn they did not achieve his objective, obtaining small patterns in standard shotguns.

Some years ago I saw .45-70-405 cartridges loaded with shot in a wood container shaped like the regular bullets, but did not shoot any so have no idea as to the results secured.

I would greatly appreciate it if you could refer me to any books dealing with this matter as it appears to me that a shot charge of fair effectiveness which did not interfere with its regular functioning would add greatly to both the use and pleasure that could be obtained from it.—W.F.K.

Answer: In experimenting with full charges in 12-gauge shotguns which, of course, had smooth bored barrels, Mr. Sweely used a copper cup and also a paper cup with a copper gas check or wad at the rear. Perhaps you would be able to adopt the paper method by fashioning cups (of the toughest paper you can get) properly folded. Perhaps the regular wad would take care of this without a gas check wad at the base of the paper cup, or you might try a disc of very thin shim metal, or copper. As you know, paper patched bullets were used to a large extent in the Sharps rifles during black powder days.

As I remember it, the paper cup was more effective than the copper cup in Sweely's experiments, because the copper



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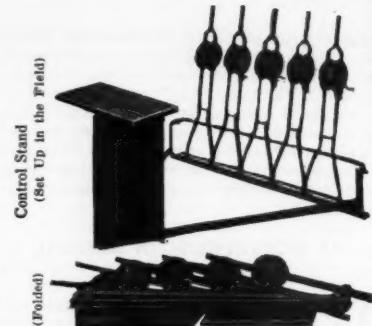
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cup tended to tumble after leaving the muzzle, and thus had a tendency to deflect the shot, which would be somewhat mitigated by using the paper material. These cups were open mouthed like a drinking cup and merely protected the sides and base of the shot column. These cups should work, no matter how folded, and a little experimenting and practice on your part would soon determine the best material to use and the best way of folding them for speed in manufacture and efficiency in use.

Since you mention it, I believe that you may hit on a solution with your proposed method of using wax with the shot. Softening the wax with vaseline or cylinder oil would certainly help to overcome the tendency of balling the shot loads. A little experimenting against a back stop should discover for you the proper proportion.

I have used the .45-70 shot cartridges with outside paper containers in both the Springfield single shot rifle and the Model 1886 Winchester repeater. The average results were tabulated in the Dope Bag article to which you refer. I have also used these containers in the .45 A. C. P. pistol and in the Model 1917 revolver, and the results were noticeably better in the revolver. I have also used them in the .44 Game Getter, but in this smooth bored barrel the results were inferior to those obtained with the regular method of loading shot in a smooth bore arm, and inferior to the outside container in rifled arms.

If you want to use standard equipment and standard ammunition, I would suggest a .45-70 single shot or a .41 Swiss Vetterli rim fire, either of which can be obtained for \$5.00, or less, through Francis Bannerman Sons, 501 Broadway, New York, N. Y. You can obtain the shot loads for these two rifles from the Peters Cartridge Company loaded in outside containers, and I think in No. 8 size shot. In handguns, I would suggest the Model 1917 revolver, .45 A. C. P. caliber, which can be obtained in commercial grade from the Colt or Smith & Wesson factories and in service grade through the D. C. M.

I do not know of any books on the subject of these special shot loads, but I would suggest that you write to the duPont Powder Company for their interesting booklet on shotgun loads and powders, which was written by Wallace Coxe, their Ballistic Engineer. This free booklet is, in my opinion, almost worth its weight in gold from the standpoint of interesting information it contains.

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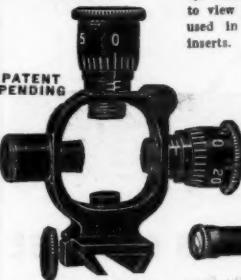


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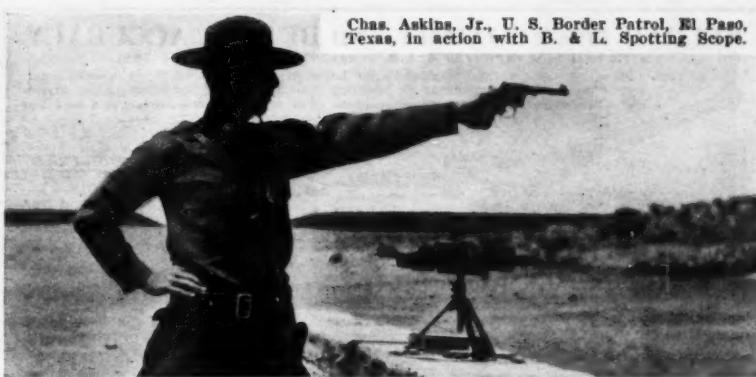
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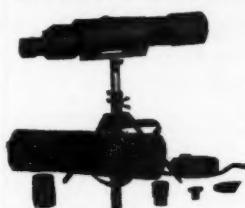
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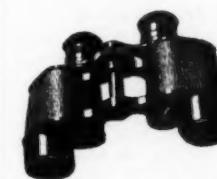


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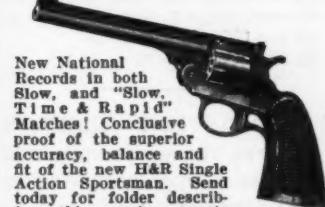
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